HCD-NEZ30

SERVICE MANUAL

US Model
Canadian Model
E Model

Ver. 1.3 2006.05

- HCD-NEZ30 is the amplifier, CD player, tape deck and tuner section in CMT-NEZ30.

CD Section	Model Name Using Similar Mechanism	HCD-NEZ3
	Base Unit Name	BU-K8BD83S-WOD
	Optical Pick-up block Name	KSM-213CDP
TAPE Section	Model Name Using Similar Mechanism	NEW
	Tape Transport Mechanism Type	CMAL5Z235A

SPECIFICATIONS

Main unit
AUDIO POWER SPECIFICATIONS
POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
(The United States model only)

With 6 ohm loads, both channels driven, from 120 – 10,000 Hz; rated 15 watts per channel minimum RMS power, with no more than 10% total harmonic distortion from 250 milliwatts to rated output.

Amplifier section
North-American model:
Continuous RMS power output (reference): 15 + 15 W (6 ohms at 1 kHz, 10% THD)
The following are measured at AC 220 V, 50/60 Hz (Argentine model), AC 120 V, 60 Hz (Mexican model), AC 120, 220 or 230 – 240 V, 50/60 Hz (other models)
DIN power output (rated): 11 + 11 W (6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference): 15 + 15 W (6 ohms at 1 kHz, 10% THD)
Inputs
AUDIO IN: Sensitivity 250 mV, impedance 47 kilohms
Outputs
PHONES: Accepts headphones with an impedance of 8 ohms or more
SPEAKER: Accepts impedance of 6 to 16 ohms

CD player section
System: Compact disc and digital audio system
Laser Diode Properties
Emission Duration: Continuous
Laser Output*: Less than 44.6µW
* This output is the value measurement at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7mm aperture.

Tape deck section
Recording system: 4-track 2-channel, stereo

Tuner section
FM stereo, FM/AM superheterodyne tuner
FM tuner section:
Tuning range
North American model: 87.5 – 108.0 MHz (100 kHz step)
Other models: 87.5 – 108.0 MHz (50 kHz step)
Antenna: FM lead antenna
Antenna terminals: 75 ohms unbalanced
Intermediate frequency: 10.7 MHz

AM tuner section:
Tuning range
Pan-American model: 530 – 1,710 kHz (with 10 kHz tuning interval)
531 – 1,710 kHz (with 9 kHz tuning interval)
Other models: 530 – 1,710 kHz (with 10 kHz tuning interval)
531 – 1,602 kHz (with 9 kHz tuning interval)
Antenna: AM loop antenna, external antenna terminal
Intermediate frequency: 450 kHz

General
Power requirements
North American model: AC 120 V, 60 Hz
Mexican model: AC 120 V, 60 Hz
Argentine model: AC 220 V, 50/60 Hz
Other models: AC 120, 220 or 230 – 240 V, 50/60 Hz
Adjustable with voltage selector
Power consumption:
North American model: 45 watts
Other models: 45 watts
Dimensions (w/h/d) (excl. speakers):
Approx. 164 × 235 × 265 mm
Mass (excl. speakers):
North American model: Approx. 3.2 kg
Other models: Approx. 3.3 kg

Design and specifications are subject to change without notice.

COMPACT DISC DECK RECEIVER

9-887-030-04
2006E05-1
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Sony Corporation
Personal Audio Division
Published by Sony Techno Create Corporation

SONY®

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage.
Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes.). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

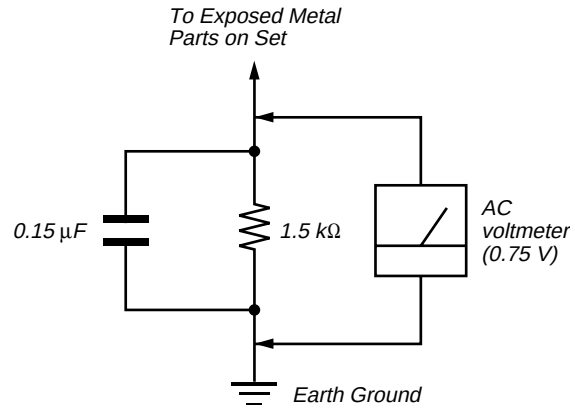

Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COM- POSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

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Refer to SUPPLEMENT-1 for the MAIN board of printed wiring boards and schematic diagrams of except US and Canadian models.
When repairing the set of US and Canadian models, refer to either of original service manual/SUPPLEMENT-1 according to the set.

SECTION 1
SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 ˚C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 ˚C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

During normal operation of the equipment, emission of the laser diode is prohibited unless the upper lid is closed while turning ON the S820. (push switch type)
The following checking method for the laser diode is operable.

- **Method**
  Emission of the laser diode is visually checked.

1. Open the upper lid.
2. Push the S820 as shown in Fig.1.

Note: Do not push the detection lever strongly, or it may be bent or damaged.

3. Press the ▶II button.
4. Check the object lens for confirming normal emission of the laser diode. If not emitting, there is a trouble in the automatic power control circuit or the optical pick-up.
   In this operation, the object lens will move up and down 2 times along with inward motion for the focus search.

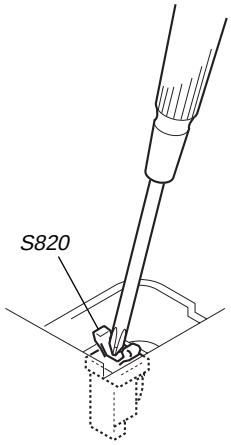
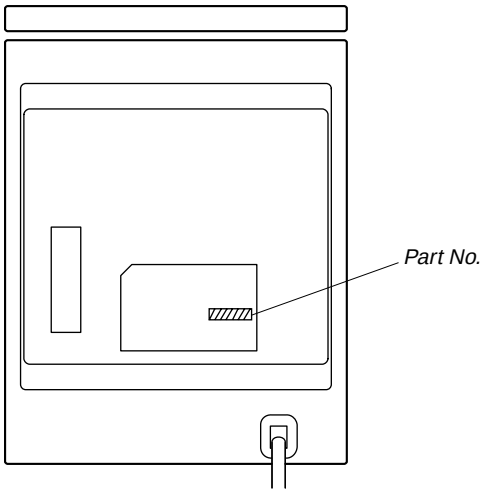


Fig.1 Method to push the S820

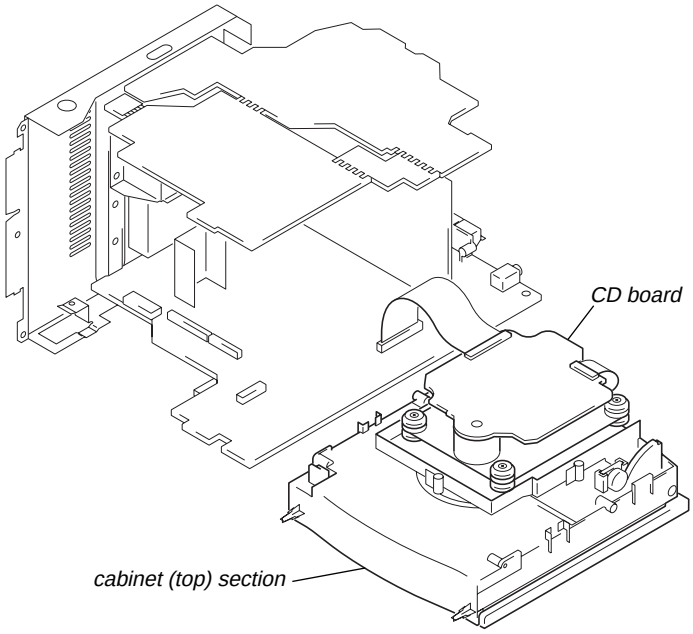
MODEL IDENTIFICATION
– Rear View –



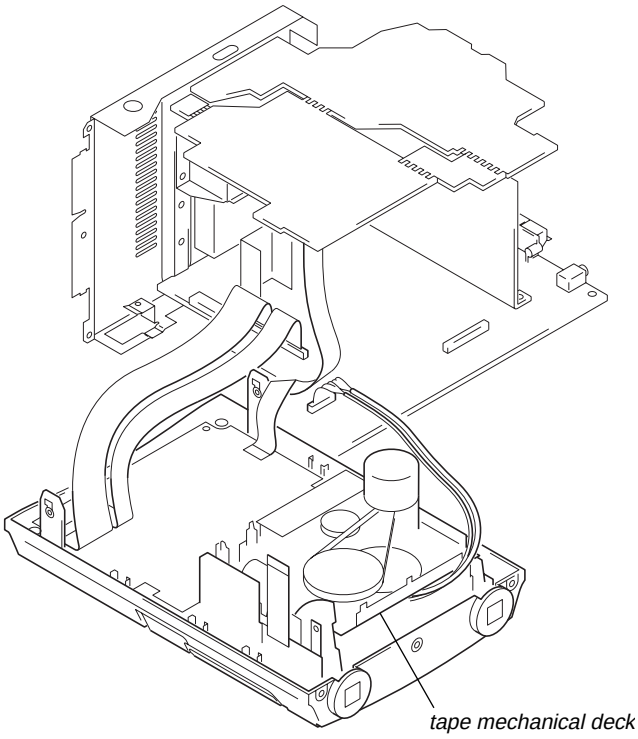
Model Name	Part No.
E model	2-665-907-0
Mexican model	2-665-908-0
Chilean and Peruvian models	2-665-909-0
Argentina model	2-665-910-0
US and Canadian models	2-665-913-0

SERVICE POSITION

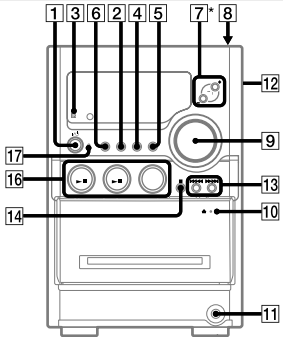
– CD BOARD –



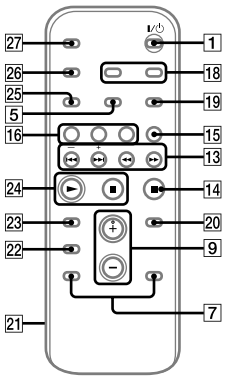
– TAPE MECHANICAL DECK –



Basic Operations



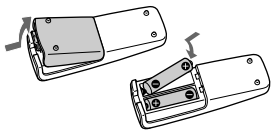
*Except for the North American model



Before using the system

To use the remote

Slide and remove the battery compartment lid 21, and insert the two supplied R6 (size AA) batteries, ⊖ side first, matching the polarities shown below.



Notes on using the remote

- With normal use, the batteries should last for about six months.
- Do not mix an old battery with a new one or mix different types of batteries.
- If you do not use the remote for a long period of time, remove the batteries to avoid damage from battery leakage and corrosion.

To set the clock

1 Turn on the system.

Press I/⏻ (power) 1.

2 Select the clock set mode.

Press CLOCK/TIMER SET 18 on the remote. If the current mode appears on the display, press ⏮/⏭ 13 on the remote repeatedly to select "CLOCK" and then press ENTER 20 on the remote.

3 Set the time.

Press ⏮/⏭ 13 on the remote repeatedly to set the hour, and then press ENTER 20 on the remote. Use the same procedure to set the minute.

The clock settings are lost when you disconnect the power cord or if a power failure occurs.

Selecting a music source

Press the following buttons (or press FUNCTION 15 repeatedly).

To select	Press
CD	CD 16 on the remote.
Tuner	TUNER/BAND 16.
Tape	TAPE 16 on the remote.
Component (connected using an audio cord)	FUNCTION 15 repeatedly until "AUDIO IN" appears.

Adjusting the sound

To adjust the volume

Press VOLUME +/– on the remote (or turn the VOLUME control on the unit) 9.

To add a sound effect

To	Press
Generate a more dynamic sound (Dynamic Sound Generator X-tra)	DSGX 6 on the unit.
Set the sound effect	EQ 22 on the remote repeatedly to select "BASS" or "TREBLE," and then press ⏮/⏭ 13 repeatedly to adjust the level.

Playing a CD/MP3 disc

1 Select the CD function.

Press CD 16 on the remote.

2 Place a disc.

Press ⏏ PUSH OPEN/CLOSE 8 on the unit, and place a disc with the label side up on the CD compartment.

To close the CD compartment, press ⏏ PUSH OPEN/CLOSE 8 on the unit.

3 Start playback.

Press ▶ (play) 24 on the remote (or CD/⏯ (play/pause) 16 on the unit).

To	Press
Pause playback	⏸ (pause) 24 on the remote (or CD/⏯ (play/pause) 16 on the unit). To resume play, press the button again.
Stop playback	■ (stop) 14.
Select a folder on an MP3 disc	🗀 +/– (select folder) 7.
Select a track or file	⏮/⏭ (go back/go forward) 13.
Find a point in a track or file	Hold down ◀◀/▶▶ (rewind/fast forward) 13 during playback, and release the button at the desired point.
Select Repeat Play	REPEAT 19 on the remote repeatedly until "REPEAT" or "REPEAT 1" appears.

To change the play mode

Press PLAY MODE 5 repeatedly while the player is stopped. You can select normal play ("🗀" for all MP3 files in the folder on the disc), shuffle play ("SHUF" or "🗀 SHUF*"), or program play ("PGM").

* When playing a CD-DA disc, 🗀 (SHUF) Play performs the same operation as normal (SHUF) Play.

Notes on Repeat Play

- All tracks or files on a disc are played repeatedly up to five times.
- "REPEAT 1" indicates that a single track or file is repeated until you stop it.

Notes on playing MP3 discs

- Do not save other types of files or unnecessary folders on a disc that has MP3 files.
- Folders that have no MP3 files are skipped.
- MP3 files are played back in the order that they are recorded onto the disc.
- The system can only play MP3 files that have a file extension of ".MP3."
- If there are files on the disc that have the ".MP3" file extension, but that are not MP3 files, the unit may produce noise or may malfunction.
- The maximum number of:
  - folders is 150 (including the root folder).
  - MP3 files is 255.
  - MP3 files and folders that can be contained on a single disc is 256.
  - folder levels (the tree structure of files) is 8.
- Compatibility with all MP3 encoding/writing software, recording device, and recording media cannot be guaranteed. Incompatible MP3 discs may produce noise or interrupted audio or may not play at all.

Notes on playing multisession discs

- If the disc begins with a CD-DA (or MP3) session, it is recognized as a CD-DA (or MP3) disc, and playback continues until another session is encountered.
- A disc with a mixed CD format is recognized as a CD-DA (audio) disc.

Listening to the radio

1 Select "FM" or "AM."

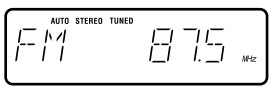
Press TUNER/BAND 16 repeatedly.

2 Select the tuning mode.

Press TUNING MODE 5 repeatedly until "AUTO" appears.

3 Tune in the desired station.

Press +/– on the remote (or TUNING +/– on the unit) 13. Scanning stops automatically when a station is tuned in, and then "TUNED" and "STEREO" (for stereo programs) appear. When you tune in a station that provides RDS services, the station name appears on the display (European model only).



To stop automatic scanning

Press ■ (stop) 14.

To tune in a station with a weak signal

If "TUNED" does not appear and the scanning does not stop, press TUNING MODE 5 repeatedly until "AUTO" and "PRESET" disappear, and then press +/– on the remote (or TUNING +/– on the unit) 13 repeatedly to tune in the desired station.

To reduce static noise on a weak FM stereo station

Press FM MODE 19 on the remote repeatedly until "STEREO" disappears to turn off stereo reception.

Playing a tape

1 Select the tape function.

Press TAPE 16 on the remote.

2 Insert a tape.

Press PUSH OPEN/CLOSE ⏏ 10 on the unit, and insert the TYPE I (normal) tape into the cassette holder with the side you want to play facing forward. Make sure there is no slack in the tape to avoid damaging the tape or the tape deck. Press PUSH OPEN/CLOSE ⏏ 10 on the unit again to close the cassette holder.

3 Start playback.

Press ▶ (play) 24 on the remote (or TAPE/⏯ (play/pause) 16 on the unit).

To	Press
Pause playback	⏸ (pause) 24 on the remote (or TAPE/⏯ (play/pause) 16 on the unit). To resume play, press the button again.
Stop playback	■ (stop) 14.
Rewind or fast forward	◀◀/▶▶ (rewind/fast forward) 13.

Changing the display

To change	Press
Information on the display*	DISPLAY 26 on the remote repeatedly when the system is on.
Display mode (See below.)	DISPLAY 26 on the remote repeatedly when the system is off.

* For example, you can view CD/MP3 disc information, such as the track or file number or folder name during normal play, or the total play time while the player is stopped.

The system offers the following display modes.

Display mode	When the system is off,[1]
Clock	The clock is displayed.
Power Saving Mode[2]	The display is turned off to conserve power. The timer and clock continue to operate.

[1] The STANDBY indicator lights up when the system is off.
[2] When the system is in Power Saving Mode, the following functions are unavailable:
- setting the clock.
- changing the AM tuning interval
- changing the CD power manage function

Notes on the display information

- The following are not displayed;
  - total playing time for a CD-DA disc depending on the play mode.
  - total playing time for an MP3 disc.
  - remaining playing time for an MP3 file.
- The following are not displayed correctly;
  - elapsed playing time of an MP3 file encoded using a VBR (variable bit rate).
  - folder and file names that do not follow either the ISO9660 Level 1, Level 2 or Joliet in the expansion format.
- The following are displayed;
  - ID3 tag information for MP3 files when ID3 version 1 and version 2 tags are used.
  - up to 30 characters of ID3 tag information using uppercase letters (A to Z), numbers (0 to 9), and symbols (" $ % ' ( ) * + , – . / < = > @ [\ ] _ ` { | }).

Using optional audio components

To connect an optional headphones

Connect headphones to the PHONES jack 12 on the unit.

To connect an optional component

Connect additional audio component to the AUDIO IN jack 12 on the unit using an audio analog cord (not supplied). Turn down the volume on the system, and then press FUNCTION 15 repeatedly to select the AUDIO IN function.

Other Operations

Creating your own CD program (Program Play)

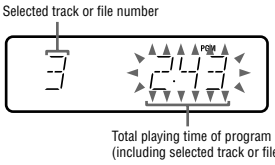
Use buttons on the remote to create your own program.

1 Press CD 16 to select the CD function.

2 Press PLAY MODE 5 repeatedly until “PGM” appears while the player is stopped.

3 Press I◄◄ /►►I 13 repeatedly until the desired track number appears.

When programming MP3 files, press 🗀 +/– (select folder) 7 repeatedly to select the desired folder, and then select the desired file.



4 Press ENTER 20 to add the track or file to the program.

“– –.– –” appears when the total time exceeds 100 minutes for a CD, or when you select an MP3 file.

5 Repeat steps 3 through 4 to program additional tracks or files, up to a total of 25 tracks or files.

6 To play your program of tracks or files, press ► (play) 24.

The program remains available until you open the CD compartment. To play the same program again, select the CD function, and press ► (play) 24.

To cancel Program Play

Press PLAY MODE 5 repeatedly until both “PGM” and “SHUF” disappear while the player is stopped.

To delete the last track or file of the program

Press CLEAR 23 while the player is stopped.

To view program information, such as total track number of the program

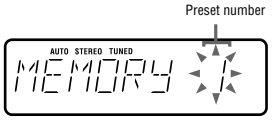
Press DISPLAY 26 repeatedly.

Presetting radio stations

You can preset your favorite radio stations and tune them in instantly by selecting the corresponding preset number.
Use buttons on the remote to preset stations.

1 Tune in the desired station (see “Listening to the radio”).

2 Press TUNER MEMORY 25.



3 Press +/– 13 repeatedly to select your desired preset number.

If another station is already assigned to the selected preset number, the station is replaced by the new stations.

4 Press ENTER 20.

5 Repeat steps 1 through 4 to store other stations.

You can preset up to 20 FM and 10 AM stations. The preset stations are retained for about half a day even if you disconnect the power cord or if a power failure occurs.

6 To call up a preset radio station, press TUNING MODE 5 repeatedly until “PRESET” appears, and then press +/– 13 repeatedly to select the desired preset number.

Recording onto a tape

You can record on a TYPE I (normal) tape in two ways:

CD Synchro Recording:

You can record an entire CD onto a tape.

Manual Recording:

You can record just the portions you like from a sound source, including connected audio components.

Use buttons on the unit to control tape recording.

1 Load a recordable tape with the side you want to record facing forward.

2 Prepare the recording source.

For CD Synchro Recording:

Press CD 16 on the remote to select the CD function.
Load the disc you want to record.
When recording a folder from an MP3 disc, press PLAY MODE 5 repeatedly to select “🗀” and then press 🗀 +/– (select folder) 7 repeatedly to select the desired folder.
To record only your favorite CD tracks in your desired order, perform steps 2 through 5 of “Creating your own CD program.”

For Manual Recording:

Select the desired source to record.

3 Set the tape deck to stand by for recording.

For CD Synchro Recording:

Press CD SYNC 2.

For Manual Recording:

Press ● PAUSE/START 4.

4 Start recording.

While recording, you cannot listen to other sources.

For CD Synchro Recording:

Press ● PAUSE/START 4. When the recording is completed, the CD player and the tape deck stop automatically. If you are recording onto a tape and the tape reaches the end of the front side part-way through a track or file, “TURN TAPE” appears. Turn the tape over to the reverse side, re-insert it, and “PUSH REC” appears. And then press ● PAUSE/START 4.

For Manual Recording:

Press ● PAUSE/START 4, and then start playing the desired recording source.
If there is noise while recording from the tuner, reposition the appropriate antenna to reduce the noise.

To stop recording

Press ■ (stop) 14.

Note

Recording stops if you change to a different function.

Using the Timers

The system offers three timer functions. You cannot activate both the Play Timer and the Rec Timer at the same time. If you use either with the Sleep Timer, the Sleep Timer has priority.

Sleep Timer:

You can fall asleep to music. This function works even if the clock is not set.
Press SLEEP on the remote repeatedly. If you select “AUTO,” the system automatically turns off after the current disc or tape stops or in 100 minutes.
Do not select “AUTO” during Synchro Recording of a tape.

Play Timer:

You can wake up to CD, tape or tuner at a preset time.

Rec Timer:

You can record a preset radio station at a specified time.

Use buttons on the remote to control the Play Timer and the Rec Timer. Make sure you have set the clock.

1 Prepare the sound source.

For Play Timer:

Prepare the sound source, and then press VOLUME +/– 9 to adjust the volume.
To start from a specific CD track or MP3 file, create your own CD program.

For Rec Timer:

Tune in the preset radio station.

2 Press CLOCK/TIMER SET 18.

3 Press I◄◄ /►►I 13 repeatedly to select “PLAY SET” or “REC SET” then press ENTER 20.

“ON TIME” appears, and the hour indication flashes.

4 Set the time to start playing or recording.

Press I◄◄ /►►I 13 repeatedly to set the hour, and then press ENTER 20.

The minute indication flashes. Use the procedure above to set the minute.

5 Use the same procedure as in step 4 to set the time to stop playing or recording.

6 Select the sound source or prepare the tape.

For Play Timer:

Press I◄◄ /►►I 13 repeatedly until the desired sound source appears, and then press ENTER 20. The display shows the timer settings.

For Rec Timer:

Load a recordable tape. The display shows the timer settings.

7 Press I/⏻ (power) 1 to turn off the system.

The system turns on 15 seconds before the preset time. If the system is on at the preset time, the Play Timer and the Rec Timer will not play or record.

To activate or check the timer again

Press CLOCK/TIMER SELECT 18, press I◄◄ /►►I 13 repeatedly until “PLAY SEL” or “REC SEL” appears, and then press ENTER 20.

To cancel the timer

Repeat the same procedure as above until “OFF” appears, and then press ENTER 20.

To change the setting

Start over from step 1.

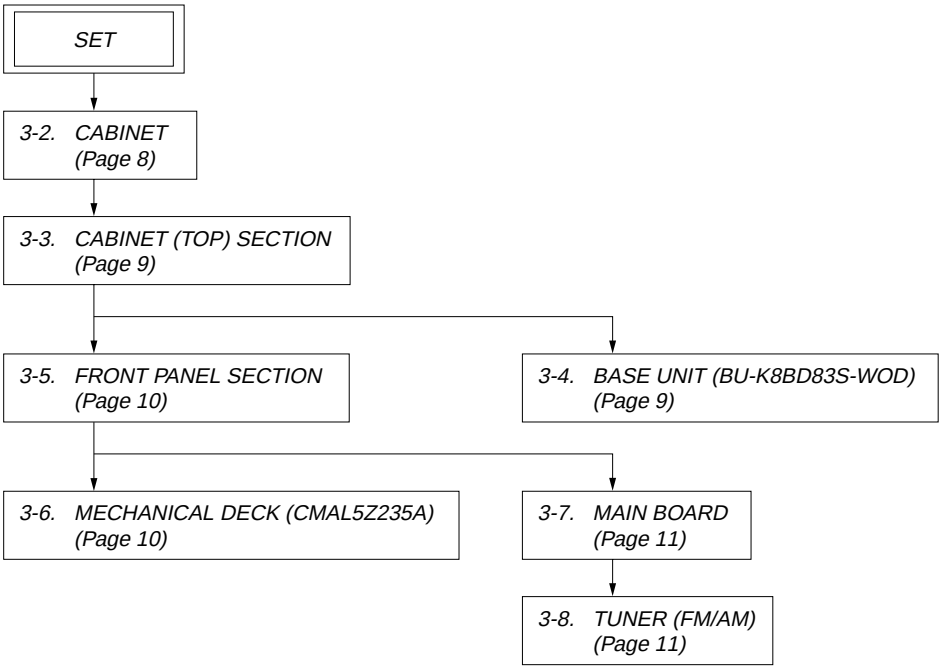
Tips

- The Play Timer setting remains as long as the setting is not canceled manually.
- The volume is reduced to minimum during the Rec Timer.
- The Rec Timer is canceled automatically after the Rec Timer has been activated.

SECTION 3
DISASSEMBLY

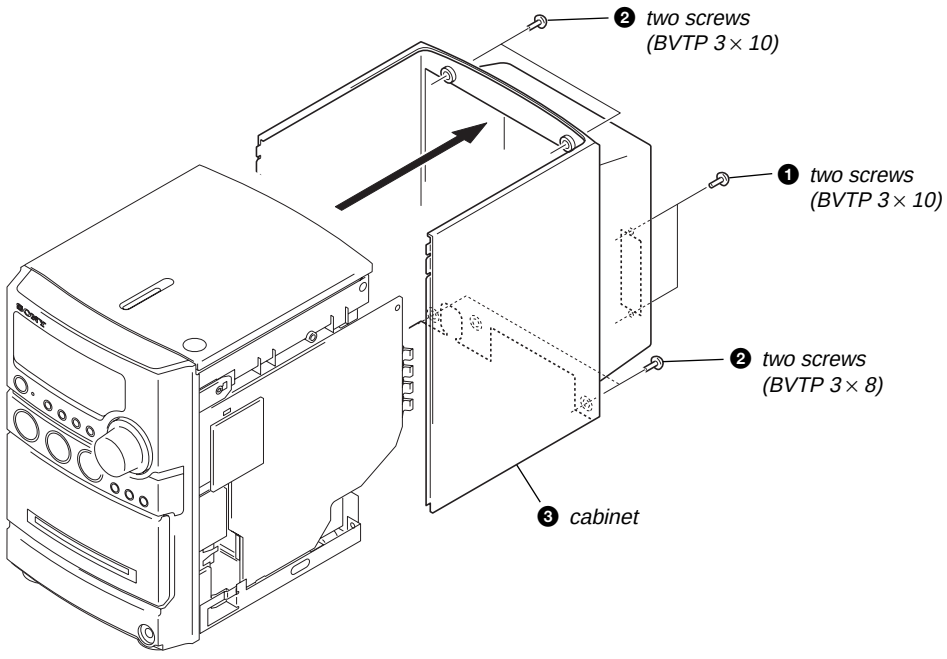
- This set can be disassembled in the order shown below.

3-1. DISASSEMBLY FLOW

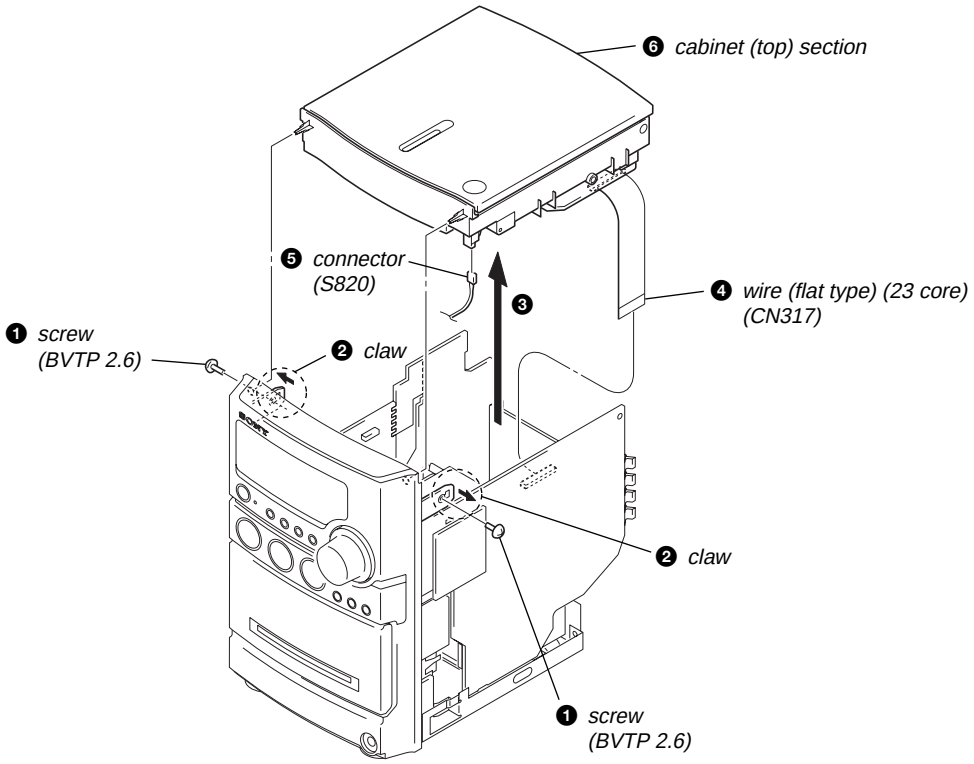

SET
3-2. CABINET (Page 8)
3-3. CABINET (TOP) SECTION (Page 9)
3-5. FRONT PANEL SECTION (Page 10)
3-4. BASE UNIT (BU-K8BD83S-WOD) (Page 9)
3-6. MECHANICAL DECK (CMAL5Z235A) (Page 10)
3-7. MAIN BOARD (Page 11)
3-8. TUNER (FM/AM) (Page 11)

Note: Follow the disassembly procedure in the numerical order given.

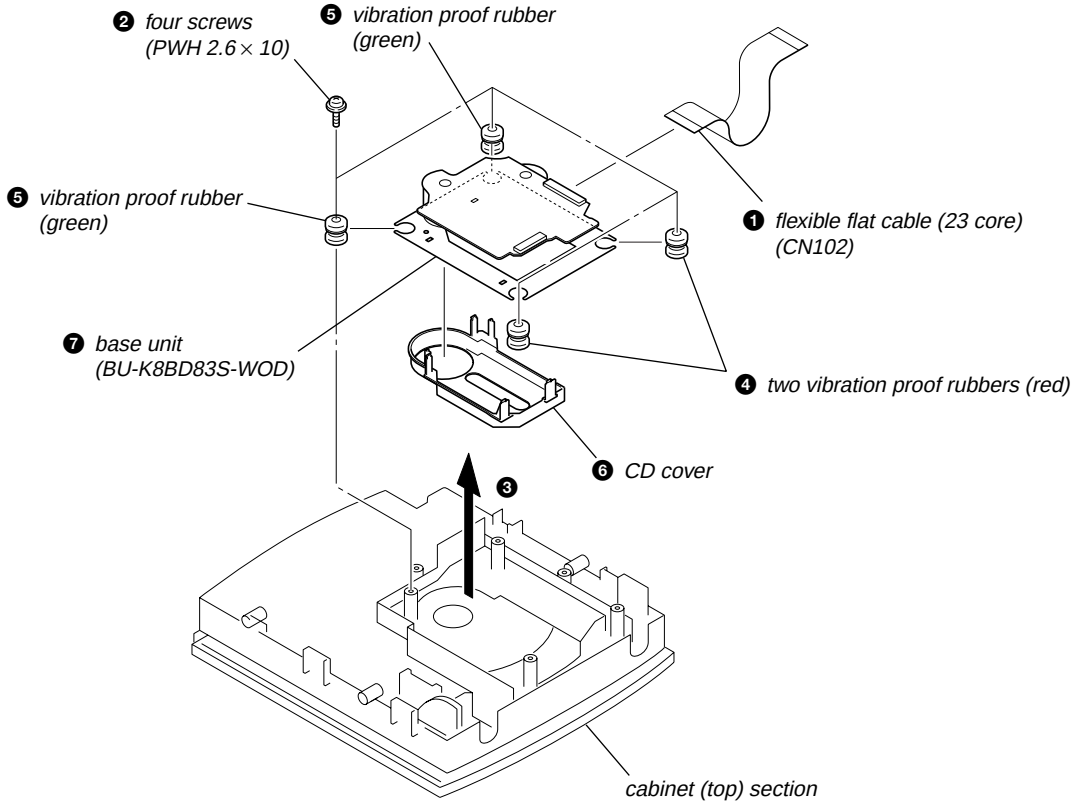
3-2. CABINET



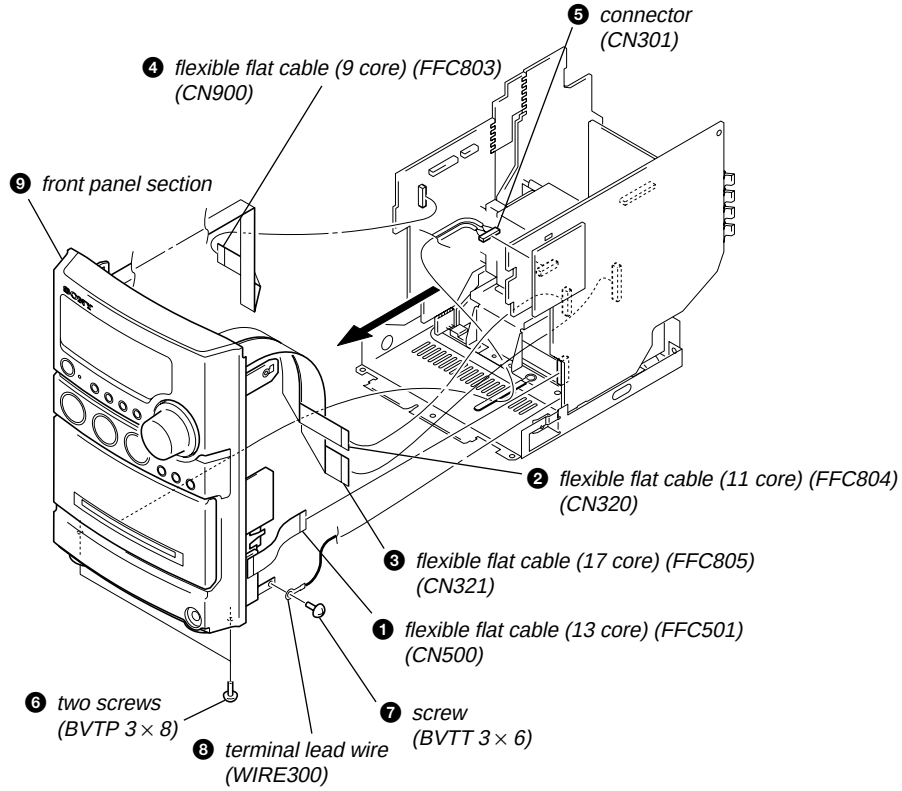
3-3. CABINET (TOP) SECTION



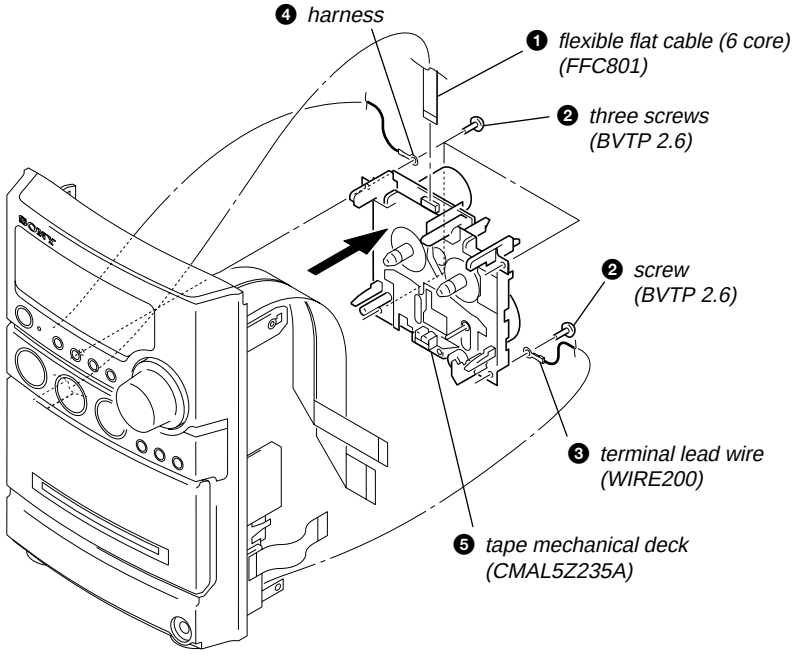
3-4. BASE UNIT (BU-K8BD83S-WOD)


❷ four screws (PWH 2.6 × 10)
❺ vibration proof rubber (green)
❺ vibration proof rubber (green)
❶ flexible flat cable (23 core) (CN102)
❼ base unit (BU-K8BD83S-WOD)
❹ two vibration proof rubbers (red)
❻ CD cover
❸
cabinet (top) section

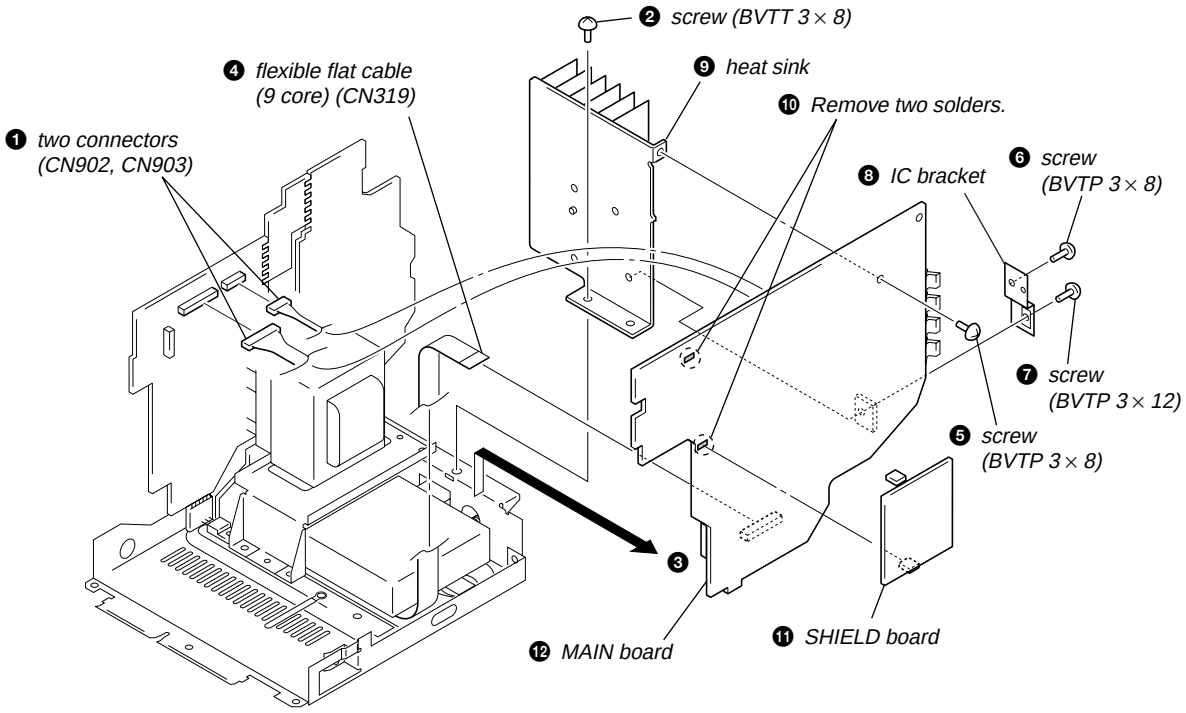
3-5. FRONT PANEL SECTION


❺ connector (CN301)
❹ flexible flat cable (9 core) (FFC803) (CN900)
❾ front panel section
❷ flexible flat cable (11 core) (FFC804) (CN320)
❸ flexible flat cable (17 core) (FFC805) (CN321)
❶ flexible flat cable (13 core) (FFC501) (CN500)
❻ two screws (BVTP 3 × 8)
❼ screw (BVTT 3 × 6)
❽ terminal lead wire (WIRE300)

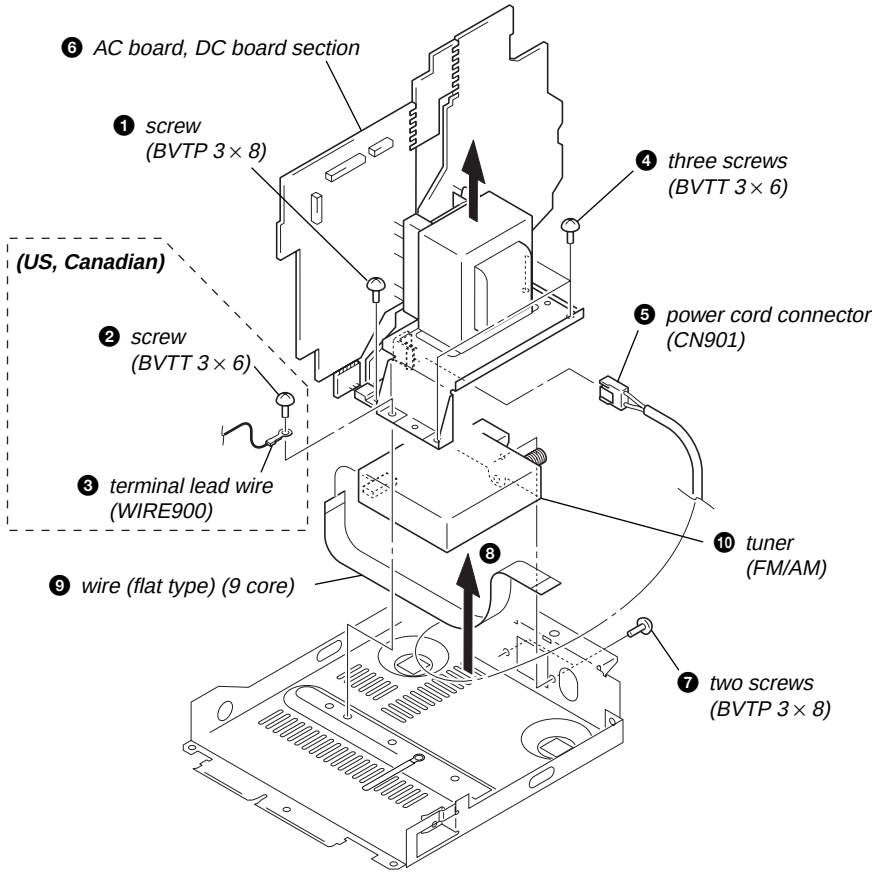
3-6. MECHANICAL DECK (CMAL5Z235A)


❹ harness
❶ flexible flat cable (6 core) (FFC801)
❷ three screws (BVTP 2.6)
❷ screw (BVTP 2.6)
❸ terminal lead wire (WIRE200)
❺ tape mechanical deck (CMAL5Z235A)

3-7. MAIN BOARD


❷ screw (BVTT 3× 8)
❹ flexible flat cable (9 core) (CN319)
❾ heat sink
❿ Remove two solders.
❶ two connectors (CN902, CN903)
❽ IC bracket
❻ screw (BVTP 3× 8)
❼ screw (BVTP 3× 12)
❺ screw (BVTP 3× 8)
❸
❿ SHIELD board
⓬ MAIN board

3-8. TUNER (FM/AM)


❻ AC board, DC board section
❶ screw (BVTP 3× 8)
❹ three screws (BVTT 3× 6)
(US, Canadian)
❺ power cord connector (CN901)
❷ screw (BVTT 3× 6)
❸ terminal lead wire (WIRE900)
❿ tuner (FM/AM)
❽
❾ wire (flat type) (9 core)
❼ two screws (BVTP 3× 8)

SECTION 4
TEST MODE

COLD RESET

The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

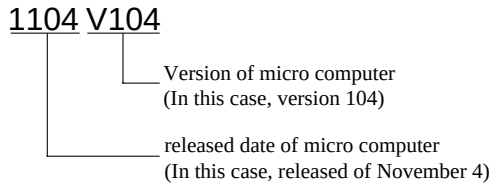
1. Press the I/⏻ button to turn the power on.
2. While pressing the ■ button, press the I/⏻ button and turn the VOLUME knob in the counter-clock wise.
3. The message “RESET” is displayed and the set is reset.

PANEL TEST

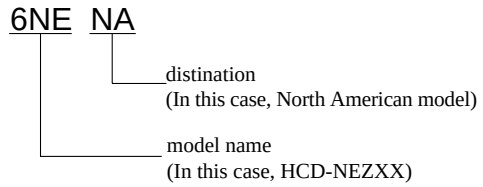
All segments of liquid crystal display are tested, and the version and released date of the micro computer are displayed.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. While pressing the DSGX button, press the ⏮◀◀ button and turn the VOLUME knob in the counter-clock wise.
   Then all segments of liquid crystal display are turned on.
3. Press the DSGX button, the version and released date of the micro computer are displayed.
   example of display:


1104 V104
Version of micro computer
(In this case, version 104)
released date of micro computer
(In this case, released of November 4)

4. Press the TUNER/BAND button, the model name and distination are displayed.
   example of display:



5. Press the PLAY MODE/TUNING MODE button, “KEY 0 0” is displayed on the liquid crystal display, and key test mode in. Each time a key is pressed, the numerical value corresponding to each key is displayed on the liquid crystal display.
6. To exit from this mode, perform the “COLD RESET”.

TUNER STEP CHANGE-OVER

Either the 9 kHz step or 10 kHz step can be selected for the AM channel step.

Procedure:

1. Set the FUNCTION to AM, and press the I/⏻ button to turn the power off.
2. While depressing the TUNER/BAND button, press the I/⏻ button.
3. The message “9K STEP” or “10K STEP” is displayed on the liquid crystal display, and thus the channel step is changed over.

CD ERROR HISTORY

When this mode is entered, optical pick-up error code is displayed with the 8-character format on the fluorescent indicator tube.

Procedure:

1. Set the FUNCTION to CD.
2. While pressing the DSGX button, press the CD ▶II button and turn the VOLUME knob in the counter-clock wise.
3. CD error history is displayed on the liquid crystal display.

The first digit from the left indicates:

The first digit from the left indicates which mode the error history is. In the optical pick-up error code mode, “D” is displayed on the liquid crystal display.

The second digit from the left indicates:
(Error history No. display)

The second digit from the left indicates which order the error history is. “1” indicates the latest error history, and each time the number increases by one, the error history goes back to one-previous error.

The third and 4th digit from the left indicates:
(Error status display)

The third and 4th digit from the left indicates which error status is indicated.

Display	Status
0 1	Not focused (TOC read without a disc)
0 2	GFS NG (TOC read with a disc chucked)
0 3	Start operation time-over
0 4	Defocused continuously (Defocused during TOC reading)
0 5	Q code not entered for specified time
0 6	Tracking not turned ON
0 7	Blank disc (Blank disc TOC read)

The 5th and 6th digit from the left indicates:
(Error step display)

The 5th and 6th digit from the left indicates which processing when a trouble occurred

Display	Contents
0 1	Power OFF in progress
0 2	Power ON in progress
0 3	Initialize in progress
0 4	Oscillation stopping
0 5	From oscillation stop, oscillation starting
0 6	Stopping
0 7	Stop operation is under way
0 8	Start operation in progress
0 9	TOC read in progress
0 A	Search operation is under way
0 B	Playback operation is under way
0 C	Pause operation is under way
0 D	Playback manual search operation is under way
0 E	Pause manual search operation is under way

The 7th and 8th digit from the left indicates:

The 7th and 8th digit from the left indicates which operation in progress when a trouble occurred. (Step of each processing of the 5th and 6th digits is indicated)

SECTION 5
MECHANICAL ADJUSTMENTS

CD POWER MANEGE

This mode is for switch the CD power supply on/off. Even if this state pulls out AC plug, it is held.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Set the FUNCTION to CD.
3. Press the I/⏻ button again to turn the power off (standby).
4. While pressing the CD ►II button, press the I/⏻ button.
5. If turns power on and display “CD POWER”, then display “ON” or “OFF”.

- **Precaution**

1. Clean the following parts with a denatured-alcohol-moistened swab :

   record/playback head — pinch roller
   erase head — rubber belts
   capstan — idlers

2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head magnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, appiy suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

- **Torque Measurement**

Mode	Torque Meter	Meter Reading
FWD	CQ-102C	2.95 – 6.86 mN·m (30 – 70 g·cm) (0.42 – 0.97 oz·inch)
FWD Back Tension	CQ-102C	0.15 – 5.39 mN·m (1.5 – 5.5 g·cm) (0.021 – 0.076 oz·inch)
FF	CQ-201B	more than 5.89 mN·m (more than 60 g·cm) (more than 0.83 oz·inch)
REW	CQ-201B	more than 5.89 mN·m (more than 60 g·cm) (more than 0.83 oz·inch)

- **Tape Tension Measurement**

Mode	Tension Meter	Meter Reading
FWD	CQ-403A	more than 100 g (more than 3.53 oz)

SECTION 6
ELECTRICAL ADJUSTMENTS

DECK SECTION | 0 dB=0.775 V

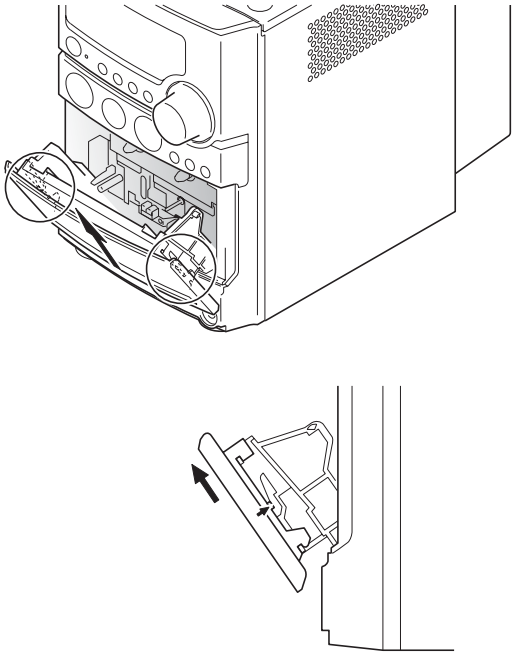
1. Demagnetize the record/playback head with a head demagnetizer.
2. Do not use a magnetized screwdriver for the adjustments.

- **Test Tape**

Tape	Signal	Used for
P-4-A063	6.3 kHz, -10 dB	Azimuth Adjustment

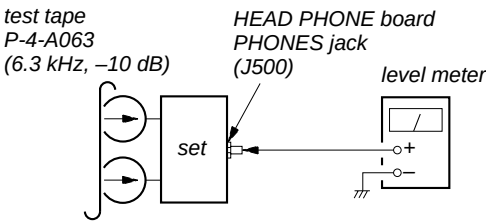
RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT

Note: Remove the cassette lid assy before this adjustment.

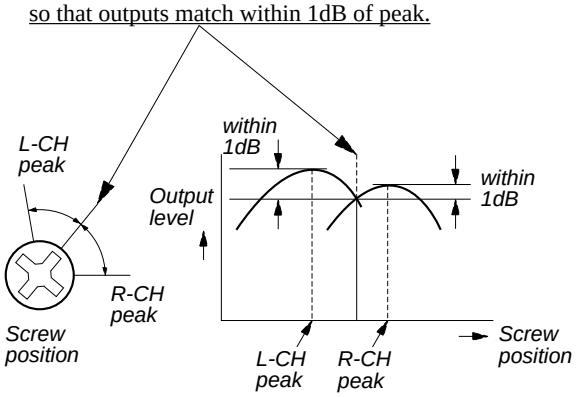


Procedure:

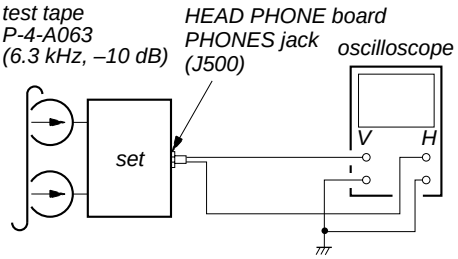
1. Mode: Playback

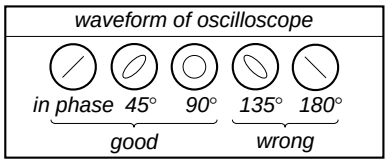


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1dB of peak.



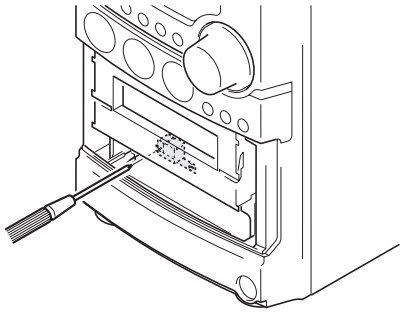
3. Mode: Playback





4. After the adjustments, apply suitable locking compound to the pats adjusted.

Adjustment Location: Record/Playback/Erase Head

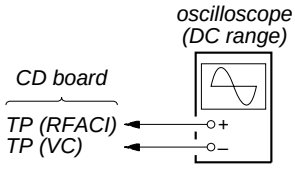


CD SECTION

Note:

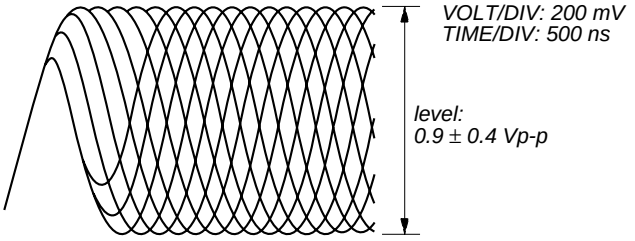
1. CD Block is basically constructed to operate without adjustment.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10 MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.
5. Check the focus bias check when optical pick-up block is replaced.

FOCUS BIAS CHECK



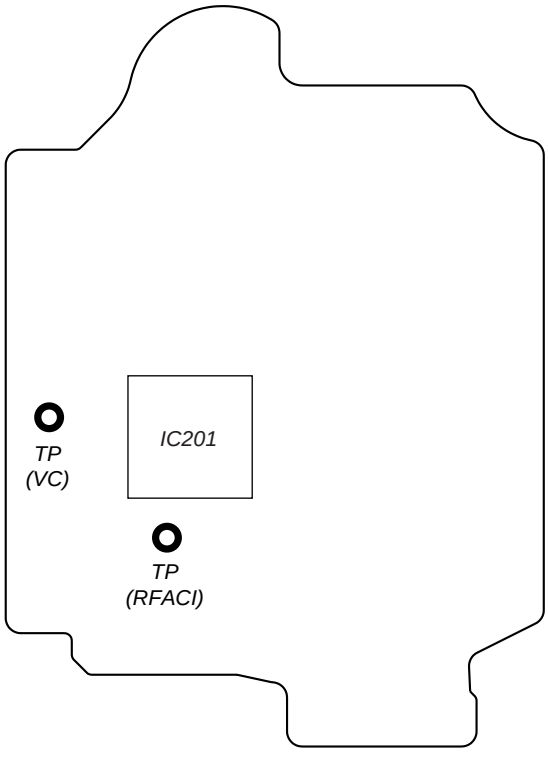
Procedure :

1. Connect oscilloscope to TP (RFACI) and TP (VC) on the CD board.
2. Press the I/⏻ button to turn the power ON.
3. Set disc (YEDS-18) on the tray and press the CD ▶II button to playback.
4. Confirm that oscilloscope waveform is as shown in the figure below. (eye pattern)
   A good eye pattern means that the diamond shape (◊) in the center of the waveform can be clearly distinguished.



Checking Location:

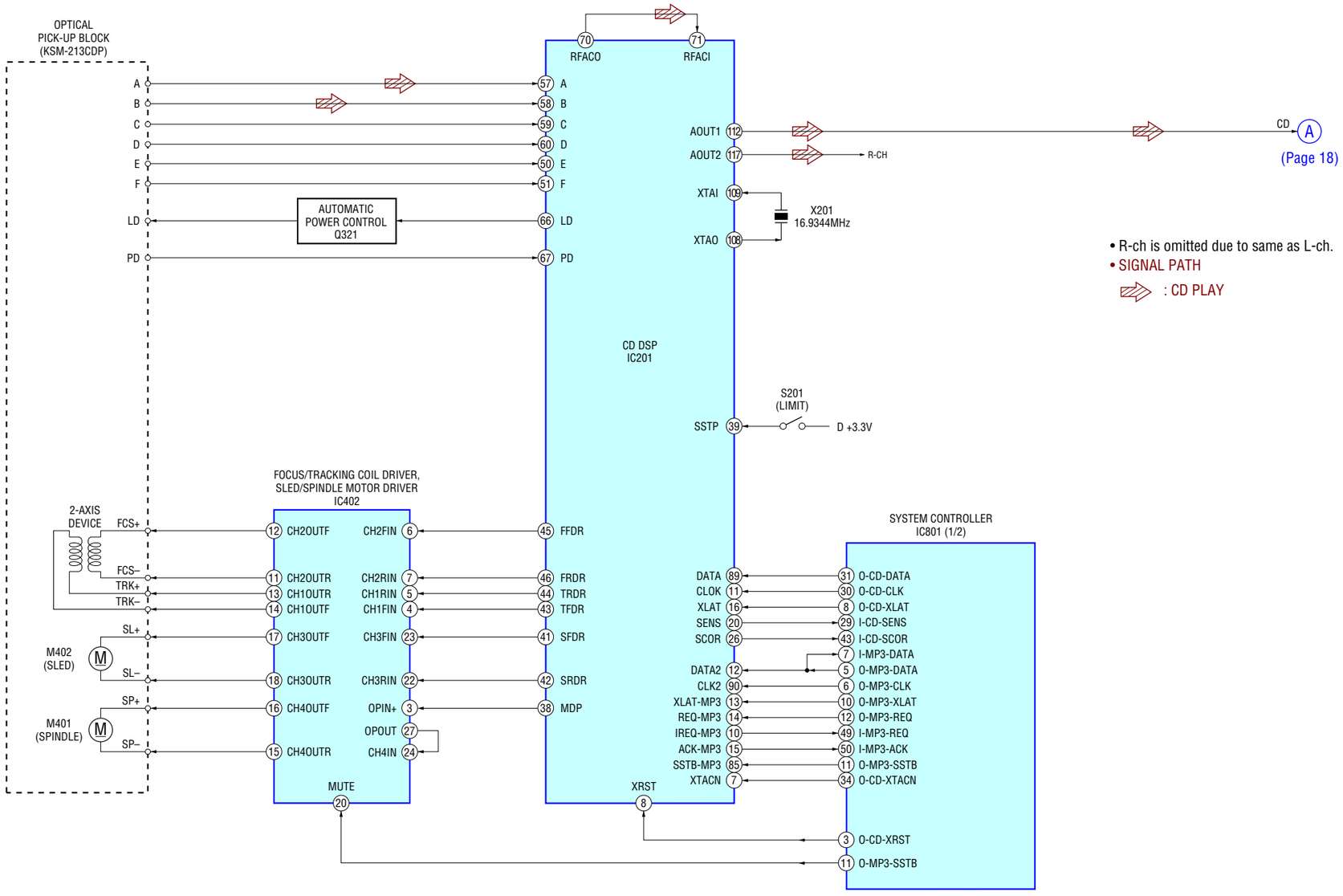
– CD Board (Conductor Side) –



MEMO

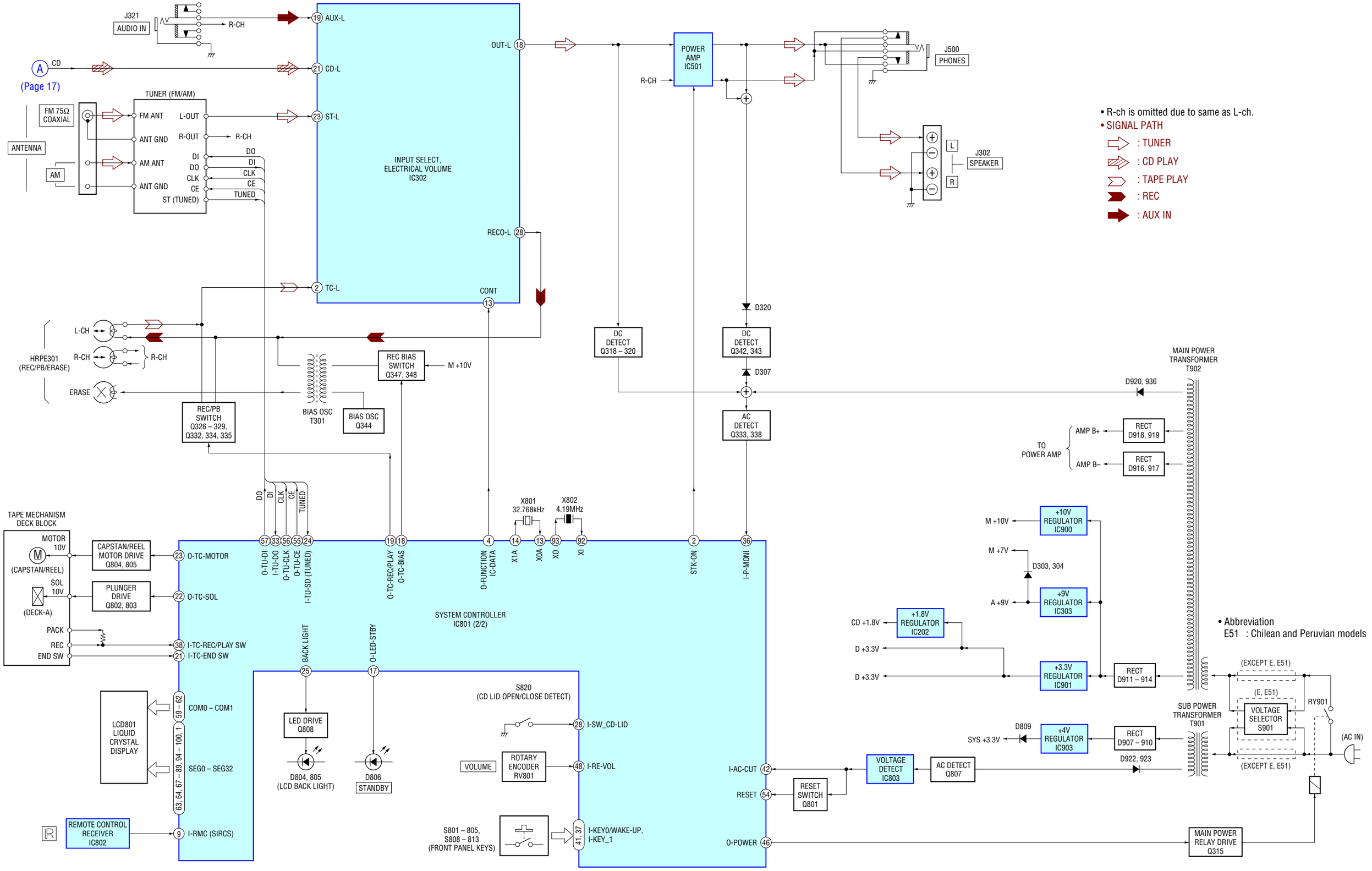
SECTION 7
DIAGRAMS

7-1. BLOCK DIAGRAM – CD SERVO Section –



• R-ch is omitted due to same as L-ch.
• SIGNAL PATH
: CD PLAY

7-2. BLOCK DIAGRAM – MAIN Section –



• Note for Printed Wiring Boards and Schematic Diagrams

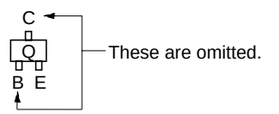
Note on Printed Wiring Board:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- △ : internal component.
- ▬ : Pattern from the side which enables seeing.

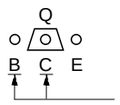
(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

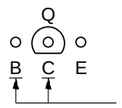
- Indication of transistor



These are omitted.



These are omitted.



These are omitted.

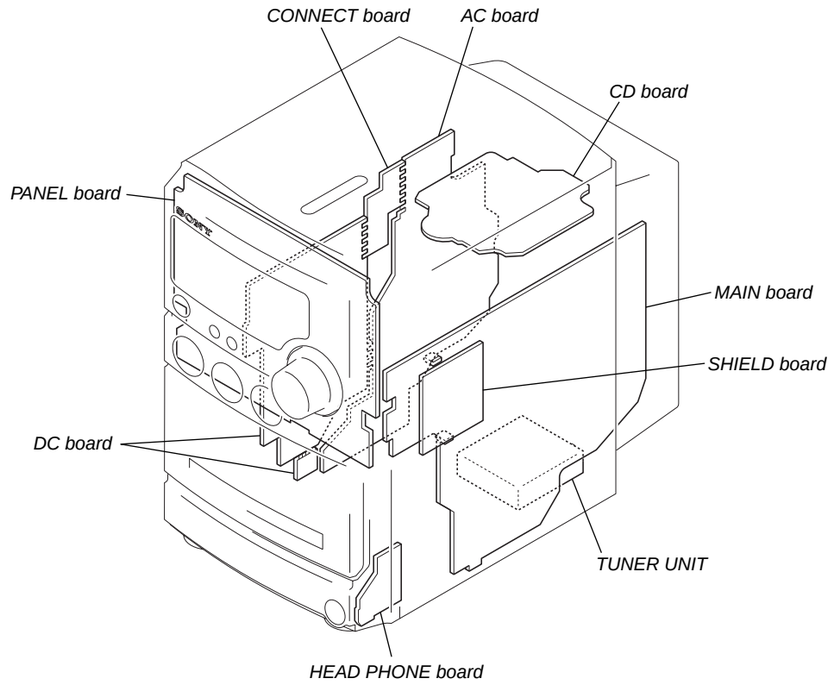
Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ▬▬ : B+ Line.
- ▬ ▬ ▬ : B– Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  – CD Board –
  no mark : CD PLAY
  – Other Section –
  no mark : TUNER
  ( ) : CD PLAY
  ⟨⟨ ⟩⟩ : TAPE PLAY
  { } : REC
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : TUNER
  ⇨ : CD PLAY
  ⇨ : TAPE PLAY
  ⇨ : REC
  ⇨ : AUX IN
- Abbreviation
  AR : Argentina model
  CND : Canadian model
  E51 : Chilean and Peruvian models
  MX : Mexican model

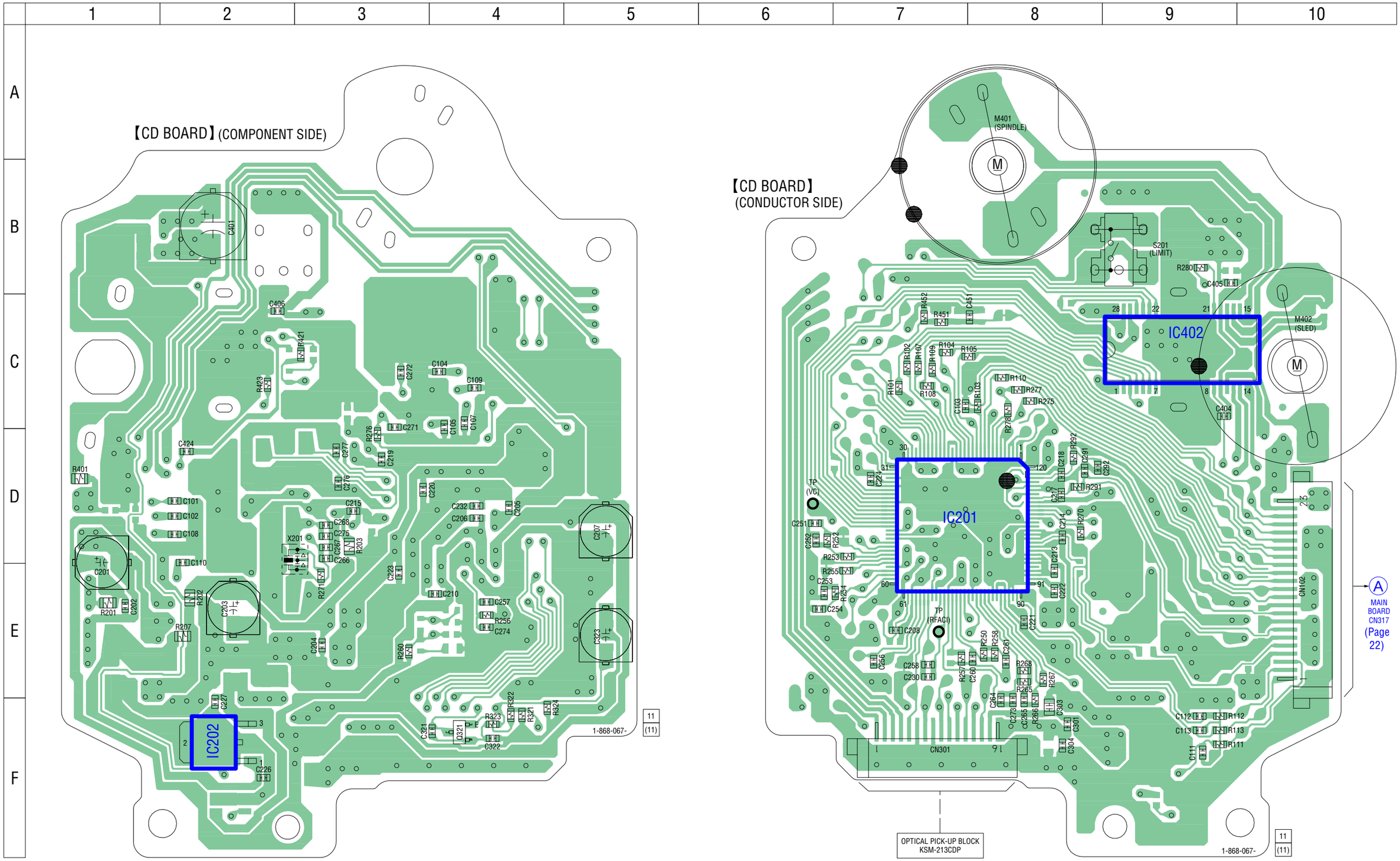
• Circuit Boards Location



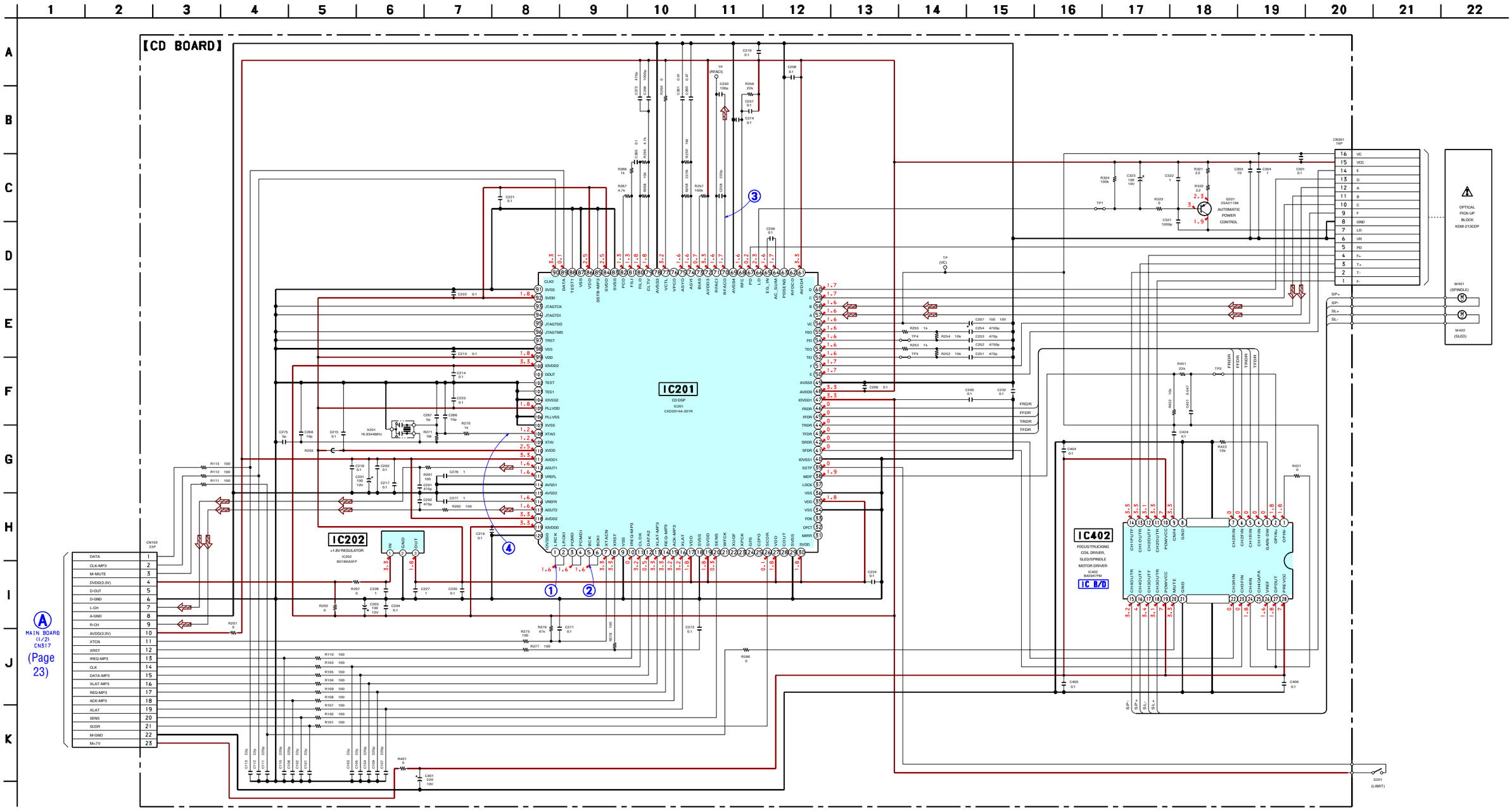
7-3. PRINTED WIRING BOARD – CD Board –

• See page 19 for Circuit Boards Location.

: Uses unleaded solder.



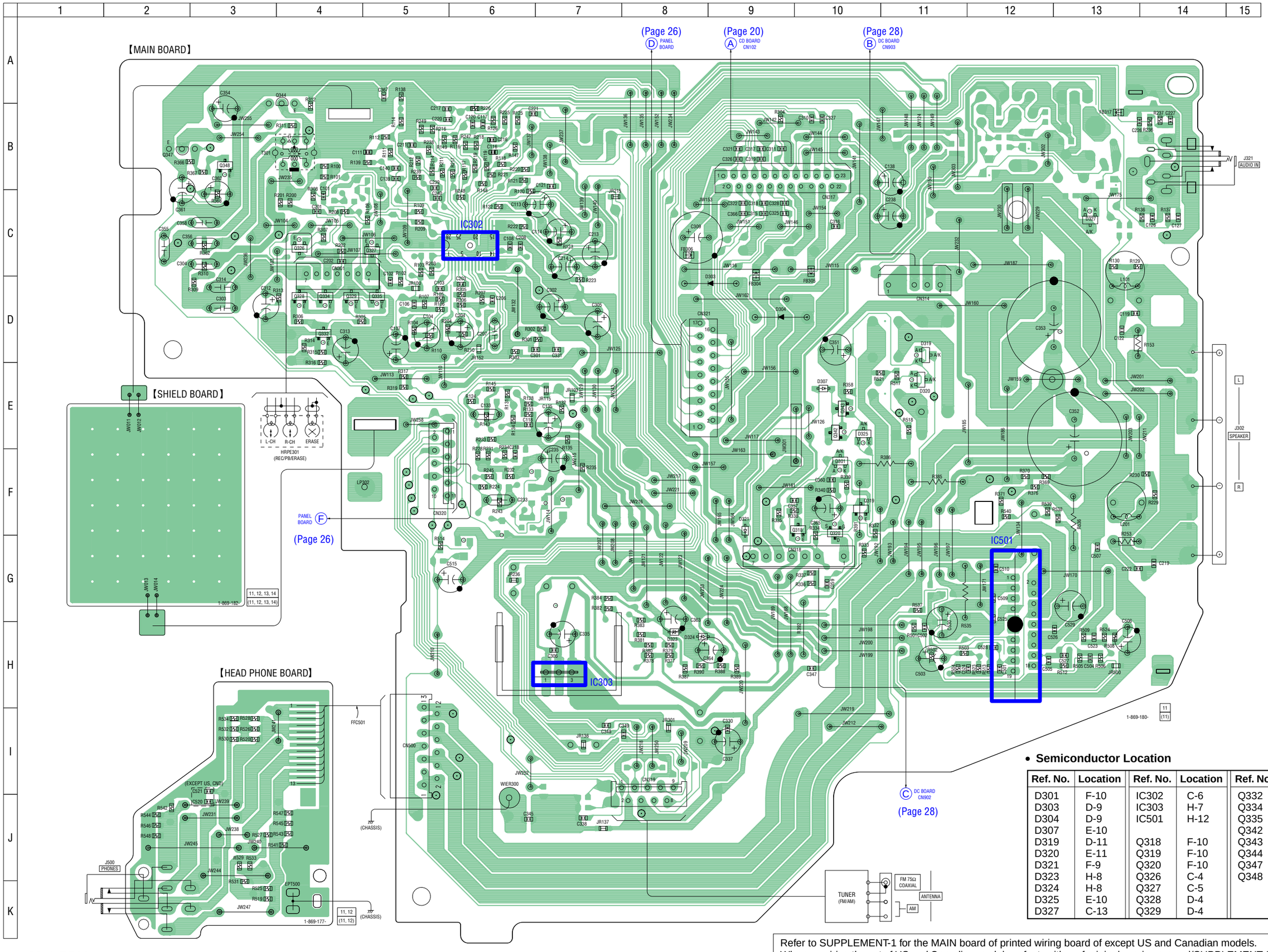
7-4. SCHEMATIC DIAGRAM – CD Board – • See page 25 for Waveforms. • See page 25 for IC Block Diagrams. • See page 31 for IC Pin Function Description.



7-5. PRINTED WIRING BOARDS – MAIN Section –

• See page 19 for Circuit Boards Location.

: Uses unleaded solder.

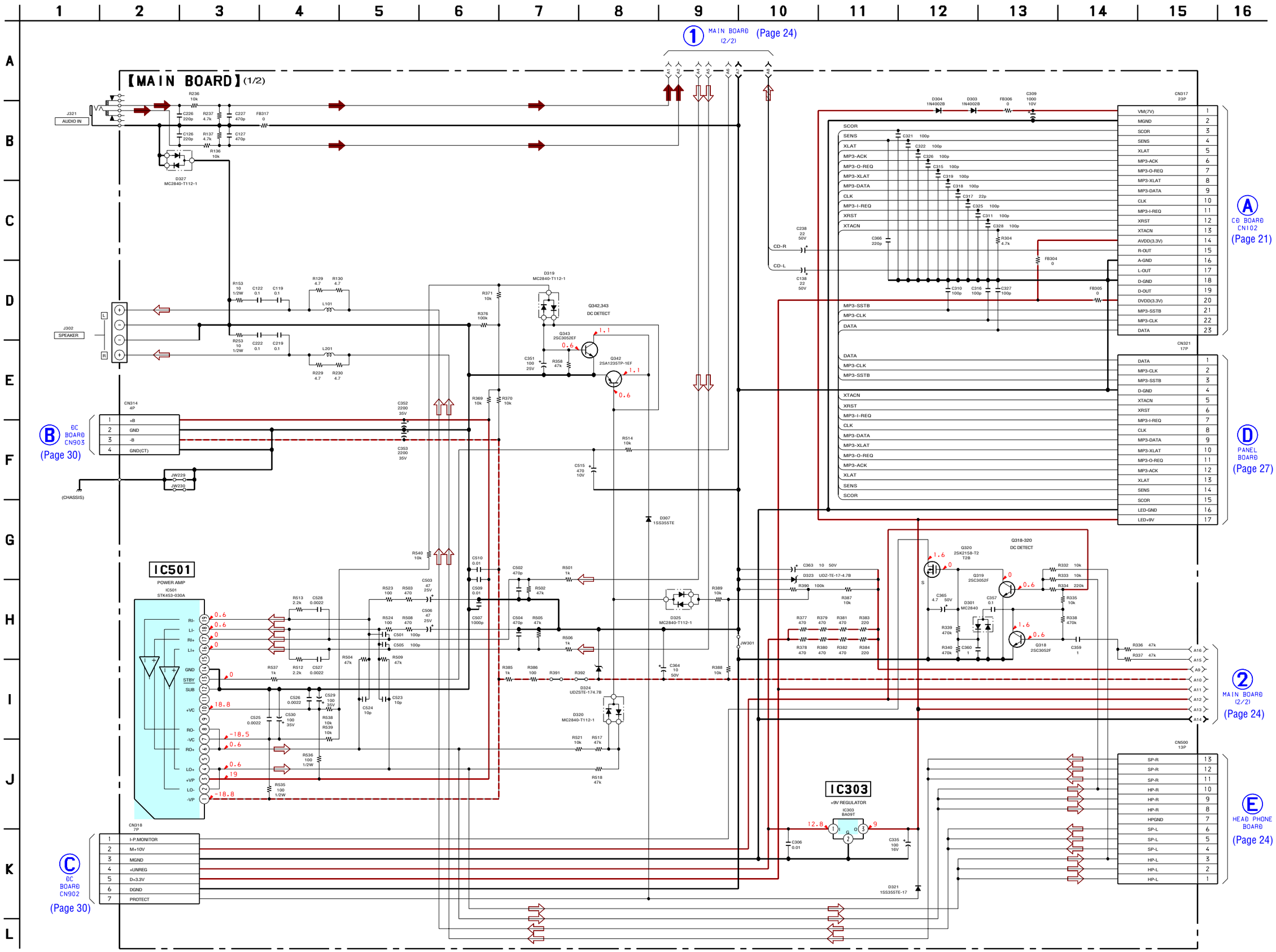


- **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D301	F-10	IC302	C-6	Q332	D-4
D303	D-9	IC303	H-7	Q334	D-4
D304	D-9	IC501	H-12	Q335	D-5
D307	E-10			Q342	E-10
D319	D-11	Q318	F-10	Q343	E-10
D320	E-11	Q319	F-10	Q344	A-4
D321	F-9	Q320	F-10	Q347	B-2
D323	H-8	Q326	C-4	Q348	B-3
D324	H-8	Q327	C-5		
D325	E-10	Q328	D-4		
D327	C-13	Q329	D-4		

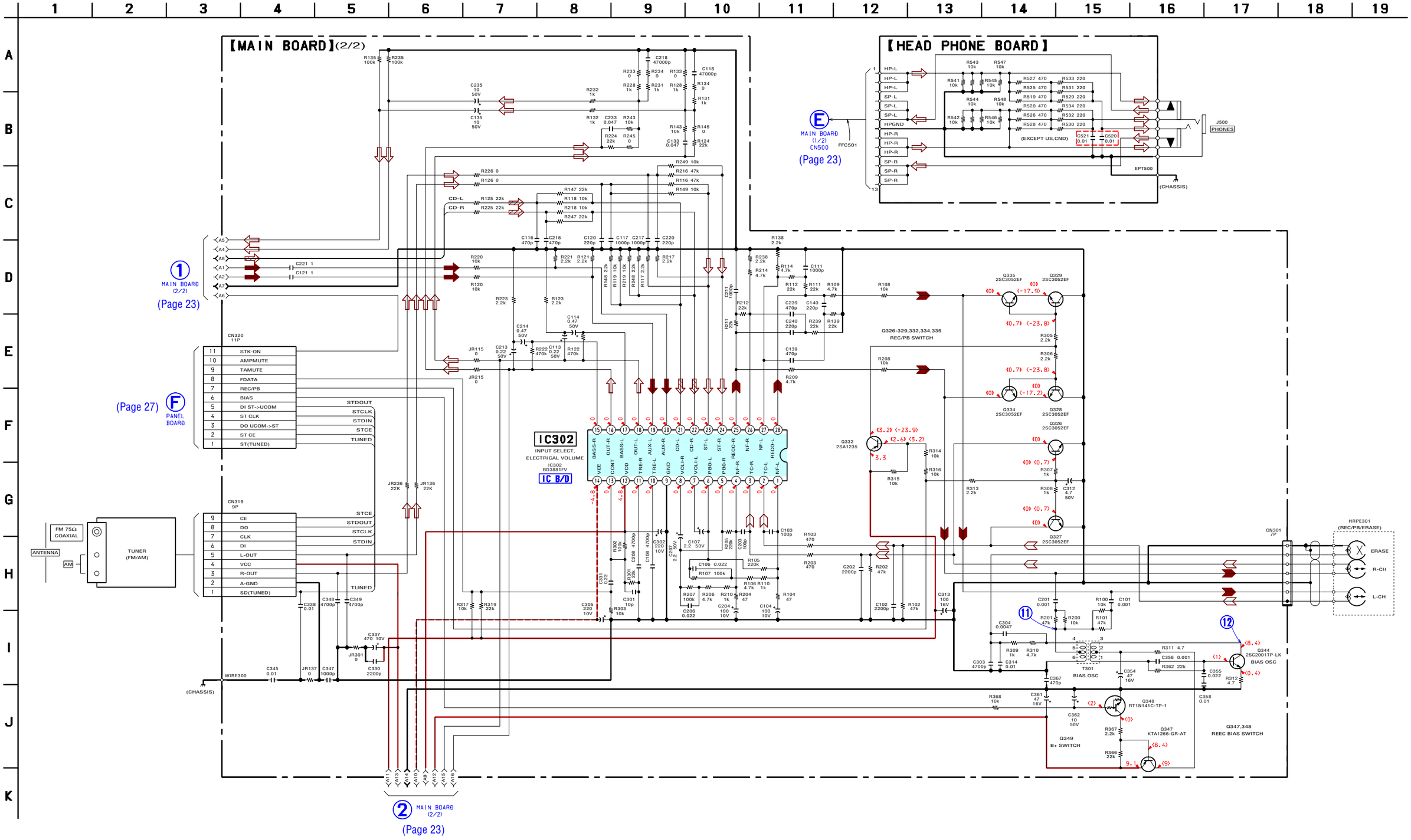
Refer to SUPPLEMENT-1 for the MAIN board of printed wiring board of except US and Canadian models.
When repairing the set of US and Canadian models, refer to either of original service manual/SUPPLEMENT-1 according to the set.

7-6. SCHEMATIC DIAGRAM – MAIN Section (1/2) –



Refer to SUPPLEMENT-1 for the MAIN board of schematic diagram of except US and Canadian models.
When repairing the set of US and Canadian models, refer to either of original service manual/SUPPLEMENT-1 according to the set.

7-7. SCHEMATIC DIAGRAM – MAIN Section (2/2) – • See page 25 for Waveforms. • See page 25 for IC Block Diagrams.

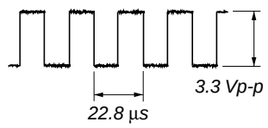


Refer to SUPPLEMENT-1 for the MAIN board of schematic diagram of except US and Canadian models.
When repairing the set of US and Canadian models, refer to either of original service manual/SUPPLEMENT-1 according to the set.

• Waveforms

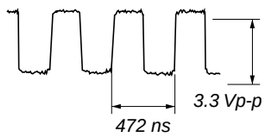
– CD Board –

① IC201 ① (LRCK) (CD PLAY mode)



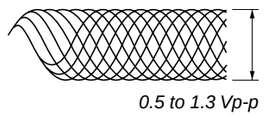
1 V/DIV, 10 µs/DIV

② IC201 ⑤ (BCK) (CD PLAY mode)



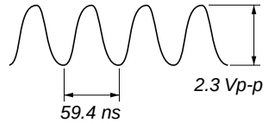
1 V/DIV, 200 ns/DIV

③ IC201 ⑦⓪ (RFACO) (CD PLAY mode)



200 mV/DIV, 500 ns/DIV

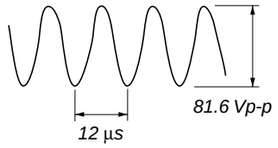
④ IC201 ⑩⑧ (XTAO) (CD PLAY mode)



1 V/DIV, 20 ns/DIV

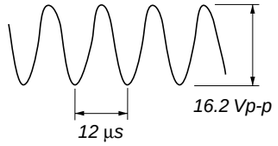
– MAIN Board –

⑪ T301 ④ (REC mode)



50 V/DIV, 5 µs/DIV

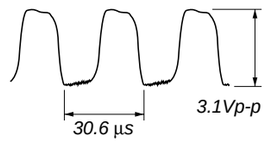
⑫ Q344 (Collector) (REC mode)



5 V/DIV, 5 µs/DIV

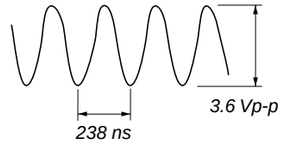
– PANEL Board –

㉑ IC801 ⑭ (X1A)



1 V/DIV, 10 µs/DIV

㉒ IC801 ⑨③ (XO) (CD play mode)

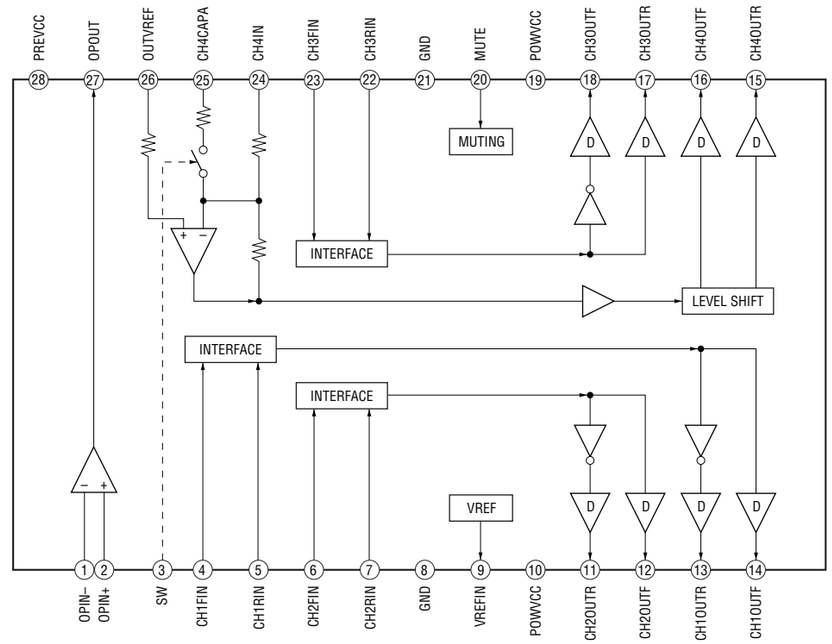


1 V/DIV, 100 ns/DIV

• IC Block Diagrams

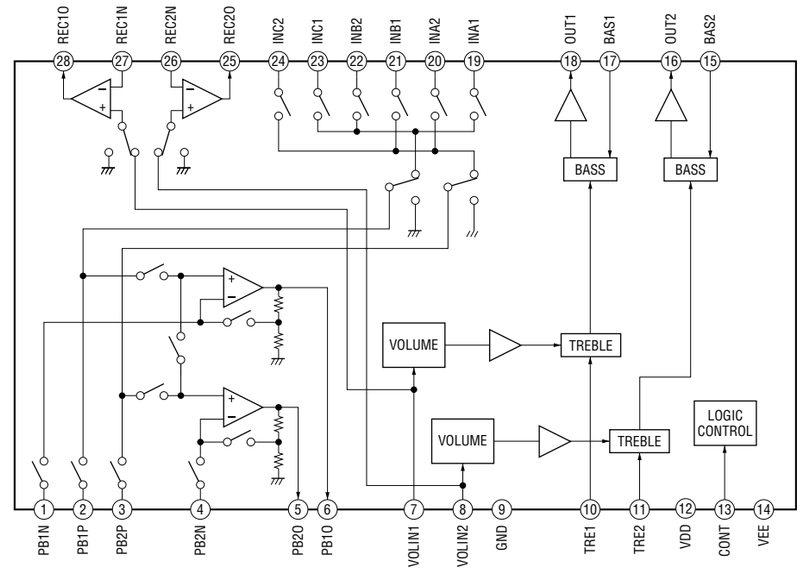
– CD Board –

IC402 BA5947FM-E2



– MAIN Board –

IC302 BD3881FV



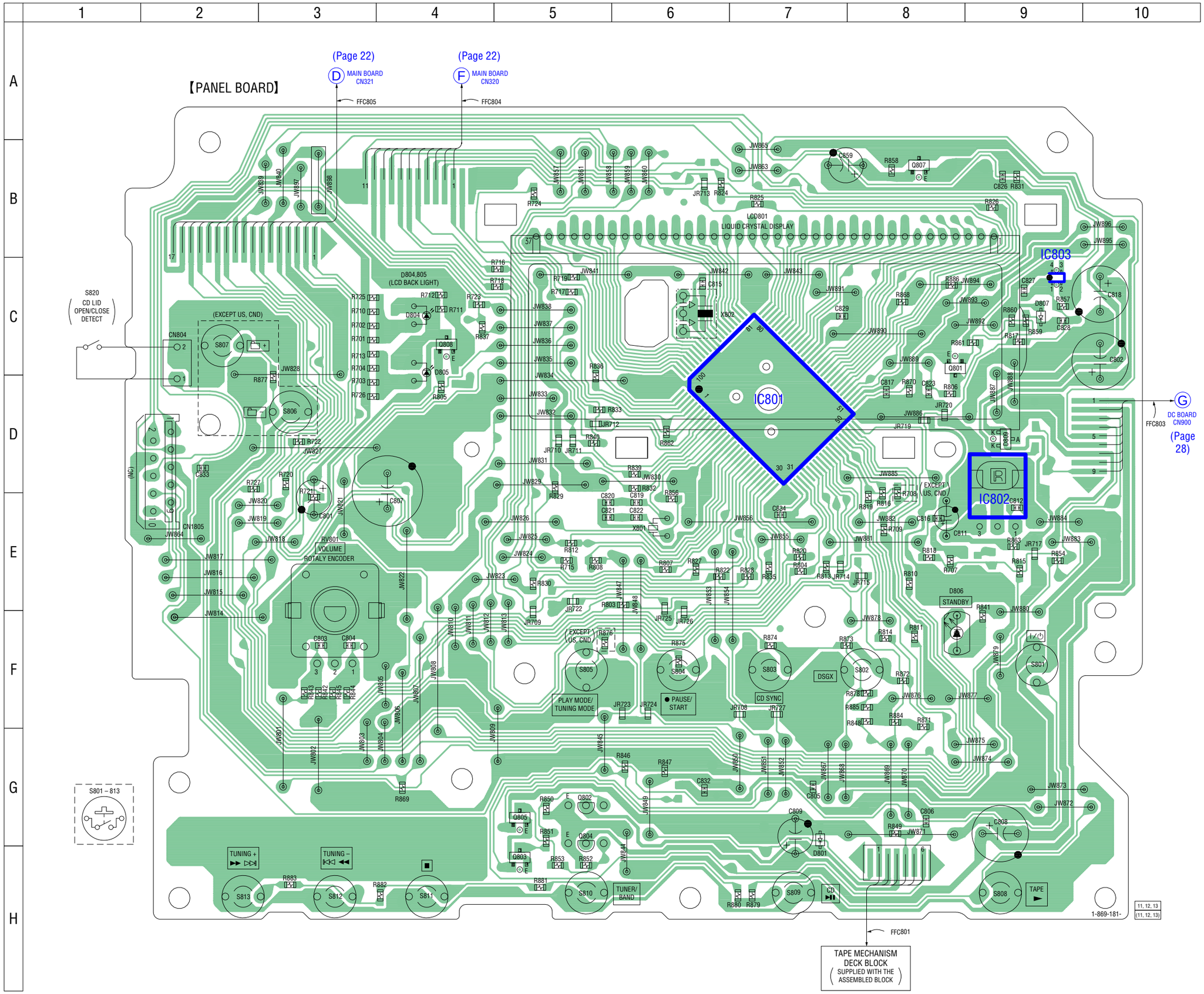
7-8. PRINTED WIRING BOARD – PANEL Board –

• See page 19 for Circuit Boards Location.

: Uses unleaded solder.

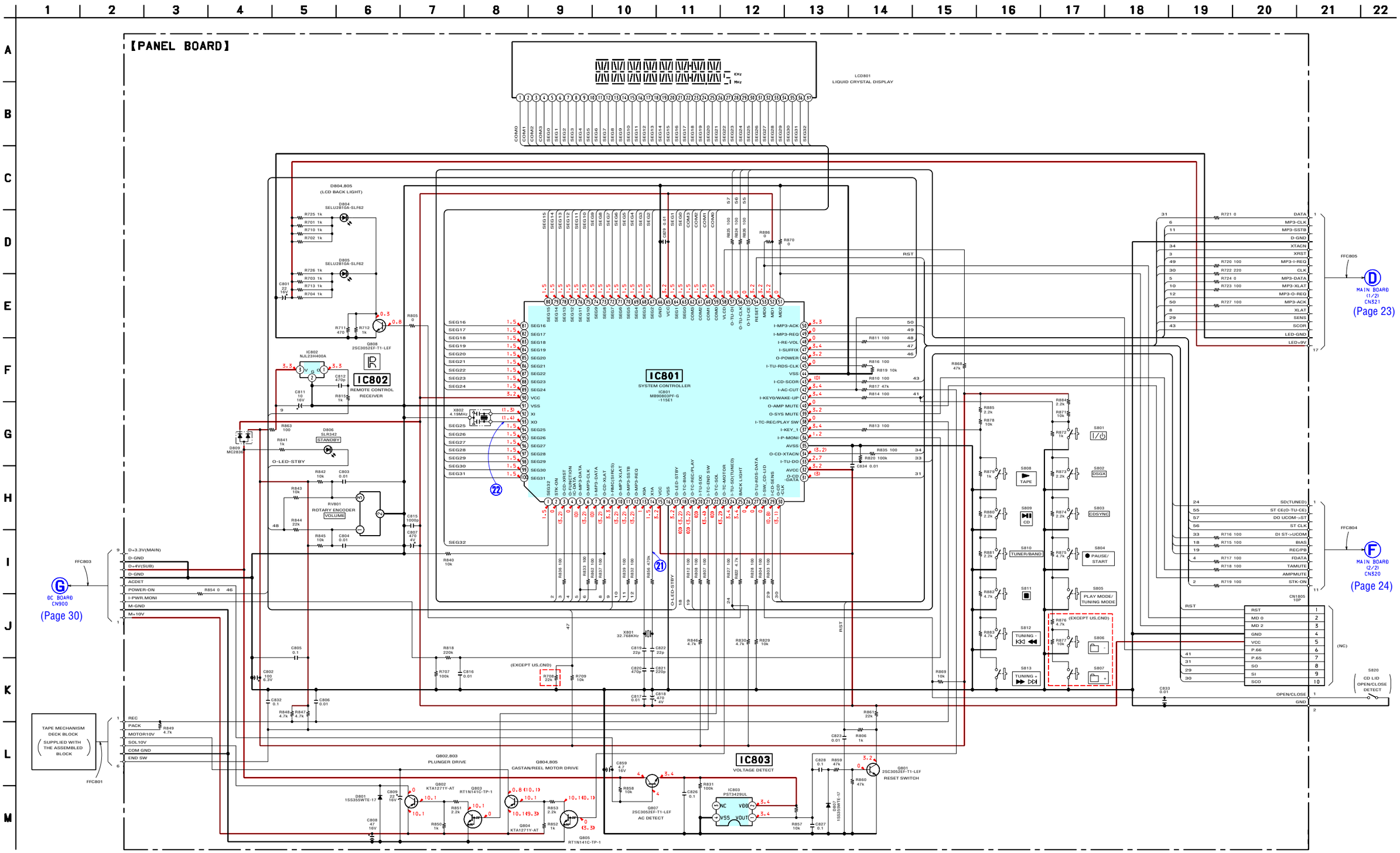
- **Semiconductor Location**

Ref. No.	Location
D801	G-7
D804	C-4
D805	C-4
D806	F-8
D807	C-9
D809	D-9
IC801	D-7
IC802	E-9
IC803	D-9
Q801	C-8
Q802	G-5
Q803	H-5
Q804	G-5
Q805	G-5
Q807	B-8
Q808	C-4



7-9. SCHEMATIC DIAGRAM – PANEL Board –

• See page 25 for Waveforms. • See page 31 for IC Pin Function Description.

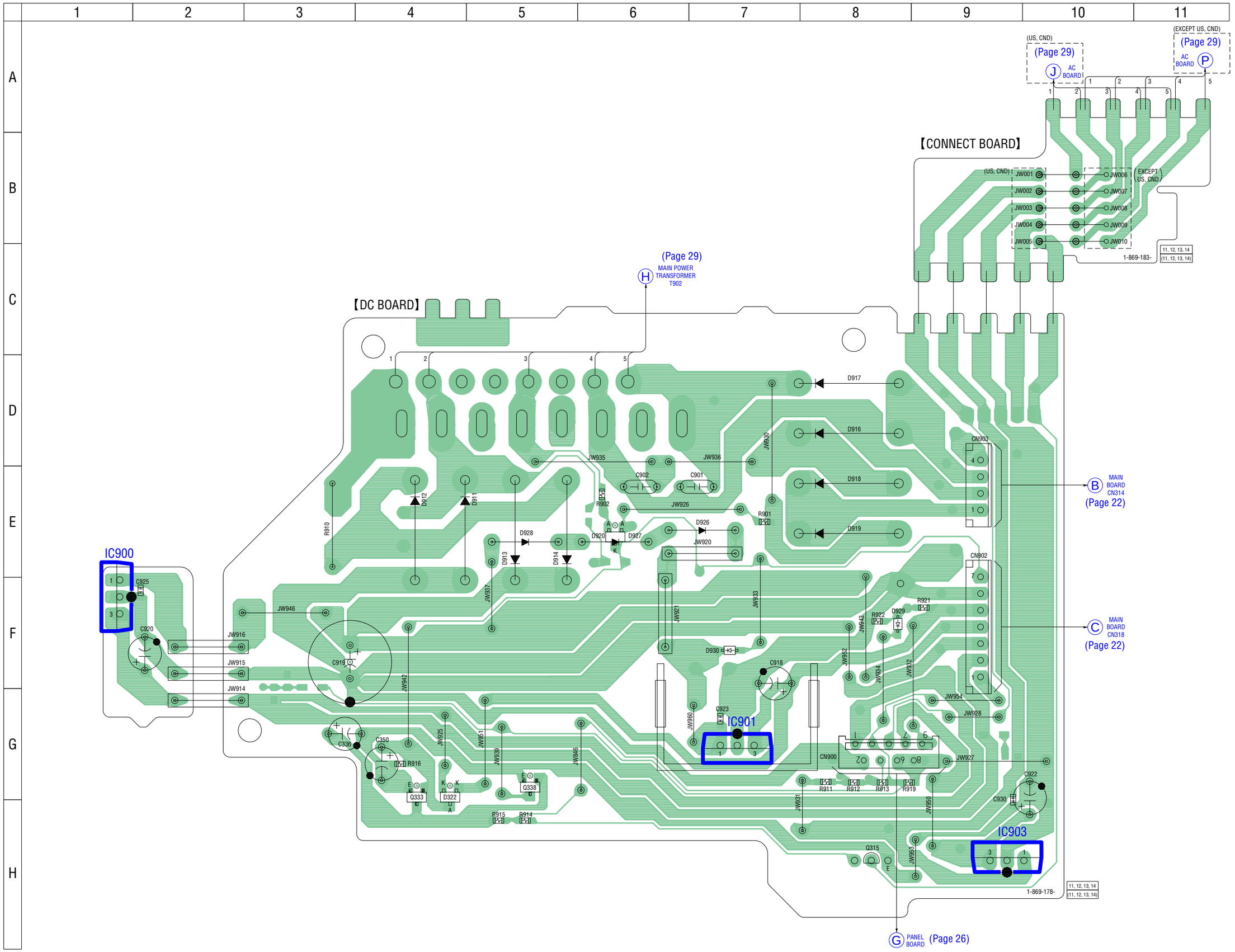


7-10. PRINTED WIRING BOARDS – DC Section –

• See page 19 for Circuit Boards Location. : Uses unleaded solder.

- **Semiconductor Location**

Ref. No.	Location
D322	G-4
D911	E-4
D912	E-4
D913	E-5
D914	E-5
D916	D-8
D917	D-8
D918	E-8
D919	E-8
D920	E-6
D926	E-7
D927	E-6
D928	E-5
D929	F-8
D930	F-7
IC900	F-1
IC901	G-7
IC903	H-9
Q315	H-8
Q333	G-4
Q338	G-5

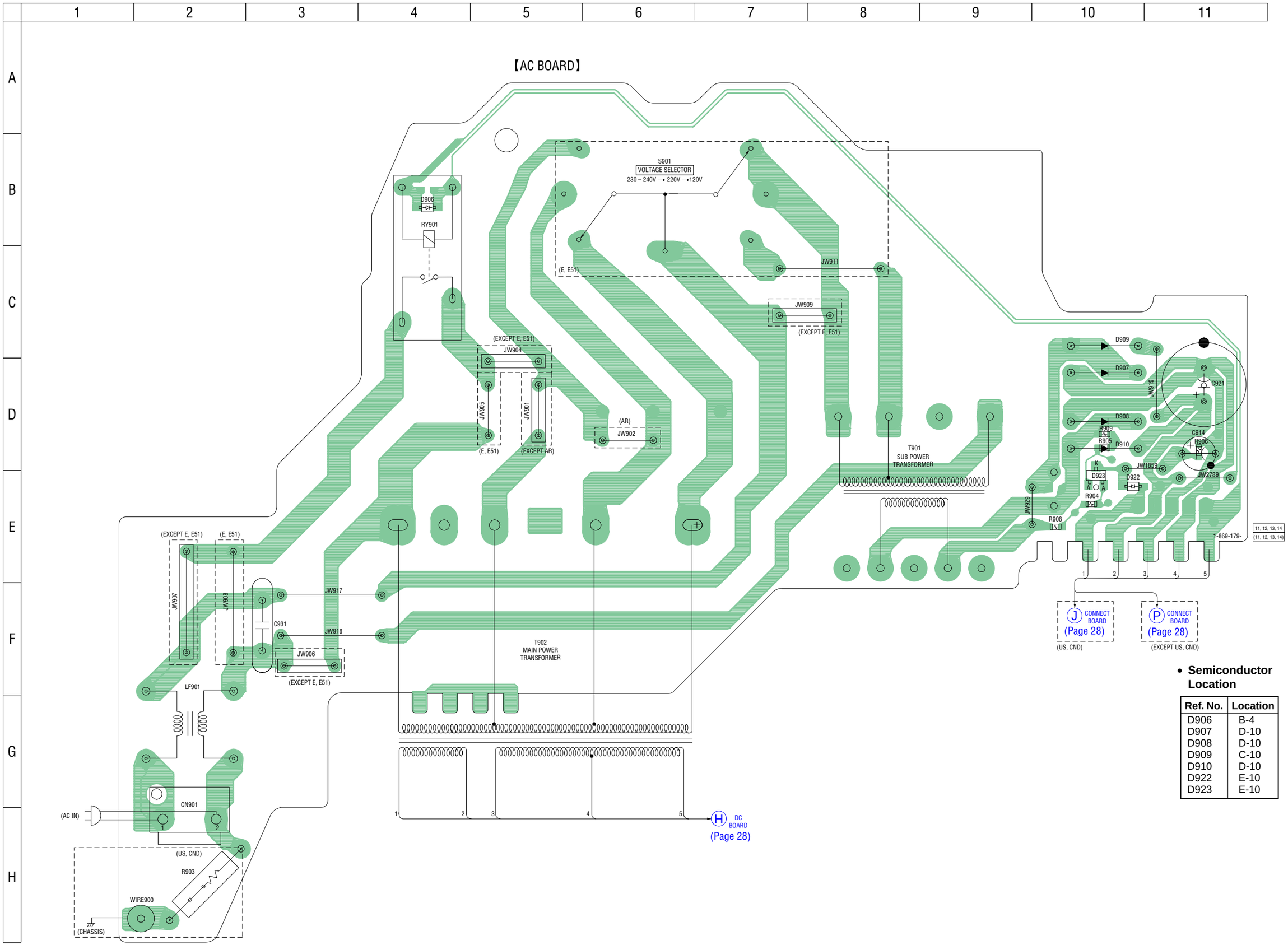


7-11. PRINTED WIRING BOARD – AC Board –

• See page 19 for Circuit Boards Location.

: Uses unleaded solder.

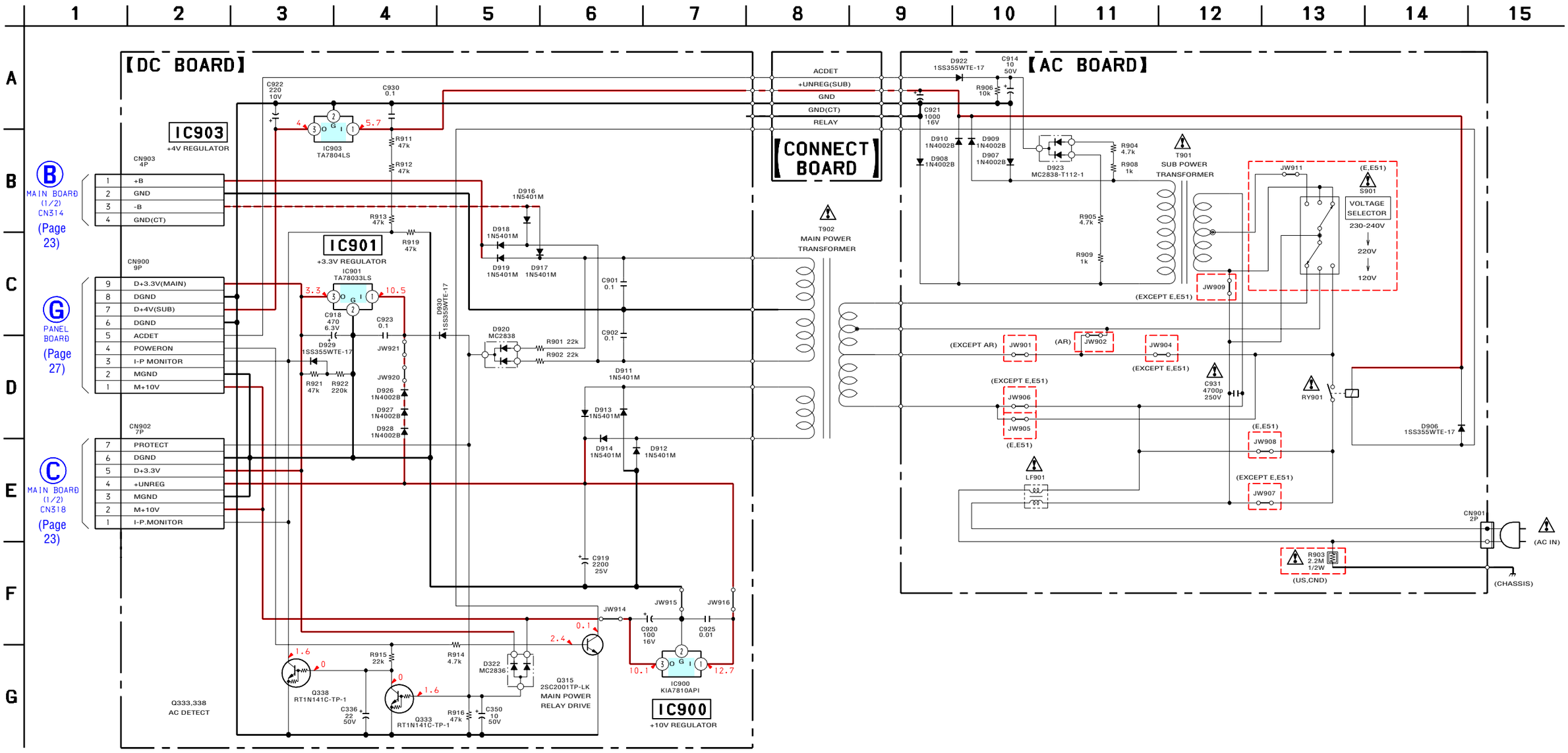
【AC BOARD】



- **Semiconductor Location**

Ref. No.	Location
D906	B-4
D907	D-10
D908	D-10
D909	C-10
D910	D-10
D922	E-10
D923	E-10

7-12. SCHEMATIC DIAGRAM – POWER SUPPLY Section –



- **IC PIN FUNCTION DESCRIPITION**

CD BOARD IC201 CXD3014A-201R (CD DSP)

Pin No.	Pin Name	I/O	Description
1	LRCK	O	L/R sampling clock signal output terminal
2	LRCKI	I	L/R sampling clock signal input terminal
3	PCMD	O	Serial data output terminal
4	PCMDI	I	Serial data input terminal
5	BCK	O	Bit clock signal output terminal
6	BCKI	I	Bit clock signal input terminal
7	XTACN	I	Oscillation circuit on/off switch control signal input from the system controller "L": oscillation stop, "H": self-oscillation
8	XRST	I	System reset signal input from the system controller "L": reset
9	VSS	-	Ground terminal
10	IREQ-MP3	O	MP3 data request signal output to the system controller
11	CLOK	I	CD serial data transfer clock signal input from the system controller
12	DATA2	I	MP3 serial data input from the system controller
13	XLAT-MP3	I	MP3 serial data latch pulse signal input from the system controller
14	REQ-MP3	I	MP3 data request signal input from the system controller
15	ACK-MP3	O	MP3 acknowledge signal output to the system controller
16	XLAT	I	CD serial data latch pulse signal input from the system controller
17	VDD	-	Power supply terminal (+1.8V)
18	SVSS	-	Ground terminal
19	SVDD	-	Power supply terminal (+1.8V)
20	SENS	O	Internal status (SENSE) signal output to the system controller
21	WFCK	-	Not used
22	XUGF	-	Not used
23	XPCK	-	Not used
24	GFS	-	Not used
25	C2PO	-	Not used
26	SCOR	O	Subcode sync (S0+S1) detection signal output to the system controller
27	VDD	-	Power supply terminal (+1.8V)
28	COUT	-	Not used
29	SVSS	-	Ground terminal
30	SVDD	-	Power supply terminal (+1.8V)
31	MIRR	-	Not used
32	DFCT	-	Not used
33	FOK	-	Not used
34	VSS	-	Ground terminal
35	VDD	-	Power supply terminal (+1.8V)
36	VSS	-	Ground terminal
37	MIRR	-	Not used
38	MDP	O	Spindle motor servo control signal output terminal
39	SSTP	I	Disc inner position detection signal input terminal
40	IOVSS1	-	Ground terminal
41	SFDR	O	Sled servo drive signal (+) output to the coil/motor driver
42	SRDR	O	Sled servo drive signal (-) output to the coil/motor driver
43	TFDR	O	Tracking servo drive signal (+) output to the coil/motor driver
44	TRDR	O	Tracking servo drive signal (-) output to the coil/motor driver
45	FFDR	O	Focus servo drive signal (+) output to the coil/motor driver
46	FRDR	O	Focus servo drive signal (-) output to the coil/motor driver
47	IOVDD1	-	Power supply terminal (+3.3V)

Pin No.	Pin Name	I/O	Description
48	AVDD0	-	Power supply terminal (+3.3V)
49	AVSS0	-	Ground terminal
50	E	I	E signal input from the optical pick-up block
51	F	I	F signal input from the optical pick-up block
52	TEI	I	Tracking error signal input terminal
53	TEO	O	Tracking error signal output terminal
54	FEI	I	Focus error signal input terminal
55	FEO	O	Focus error signal output terminal
56	VC	O	Middle point voltage output terminal
57	A	I	A signal input from the optical pick-up block
58	B	I	B signal input from the optical pick-up block
59	C	I	C signal input from the optical pick-up block
60	D	I	D signal input from the optical pick-up block
61	AVDD4	-	Power supply terminal (+3.3V)
62	RFDCO	O	Not used
63	PDSENS	I	Not used
64	AC_SUM	O	RFAC summing amplifier signal output terminal
65	EQ_IN	I	RF equalizer circuit input terminal
66	LD	O	Laser diode on/off control signal output to the automatic power control circuit "L": laser off, "H": laser on
67	PD	I	Light amount monitor input from the optical pick-up block laser diode
68	RFC	I	Equalizer cut off frequency adjustment terminal
69	AVSS4	-	Ground terminal
70	RFACO	O	EFM signal output terminal
71	RFACI	I	EFM signal input terminal
72	AVDD3	-	Power supply terminal (+3.3V)
73	BIAS	I	Asymmetry circuit constant current input terminal
74	ASYI	I	Playback EFM asymmetry comparator voltage input terminal
75	ASYO	O	Playback EFM full-swing output terminal
76	VPCO	O	Charge pump output terminal for broad-band EFM PLL
77	VCTL	I	VCO2 control voltage input terminal for broad-band EFM PLL
78	AVSS3	-	Ground terminal
79	CLTV	I	VCO1 control voltage input terminal for multiplier
80	FILO	O	Filter output terminal for master PLL
81	FILI	I	Filter input terminal for master PLL
82	PCO	O	Charge pump output terminal for master PLL
83	SVSS	-	Ground terminal
84	SVDD	-	Power supply terminal (+1.8V)
85	SSTB-MP3	I	MP3 standby on/off control signal input terminal "L": standby Not used
86	VDD	-	Power supply terminal (+1.8V)
87	VSS	-	Ground terminal
88	TEST1	I	Test terminal Normally: fixed at "L"
89	DATA	I	CD serial data input from the system controller
90	CLK2	I	MP3 serial data transfer clock signal input from the system controller
91	SVSS	-	Ground terminal
92	SVDD	-	Power supply terminal (+2.5V)
93	JTAGTCK	-	Not used
94	JTAGTDI	-	Not used
95	JTAGTDO	-	Not used
96	JTAGTMS	-	Not used

Pin No.	Pin Name	I/O	Description
97	TRST	-	Not used
98	VSS	-	Ground terminal
99	VDD	-	Power supply terminal (+1.8V)
100	IOVDD2	-	Power supply terminal (+3.3V)
101	DOUT	O	Digital audio signal output terminal Not used
102	TEST	I	Test terminal Normally: fixed at "L"
103	TES1	I	Test terminal Normally: fixed at "L"
104	IOVSS2	-	Ground terminal
105	PLLVDD	-	Power supply terminal (+1.8V)
106	PLLVSS	-	Ground terminal
107	XVSS	-	Ground terminal
108	XTAO	O	System clock output terminal (16.9344 MHz)
109	XTAI	I	System clock input terminal (16.9344 MHz)
110	XVDD	-	Power supply terminal (+1.8V)
111	AVDD1	-	Power supply terminal (+3.3V)
112	AOUT1	O	L-ch analog audio signal output terminal
113	VREFL	O	L-ch reference voltage output terminal
114	AVSS1	-	Ground terminal
115	AVSS2	-	Ground terminal
116	VREFR	O	R-ch reference voltage output terminal
117	AOUT2	O	R-ch analog audio signal output terminal
118	AVDD1	-	Power supply terminal (+3.3V)
119	IOVDD0	-	Power supply terminal (+3.3V)
120	IOVSS0	-	Ground terminal

PANEL BOARD IC801 MB90803PF-G-115E1 (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	SEG32	O	Segment drive signal output to the liquid crystal display
2	STK-ON	O	Standby control signal output to the power amplifier
3	O-CD-XRST	O	System reset signal output to the CD DSP
4	O-FUNCTION IC-DATA	O	Serial data output to the electrical volume
5	O-MP3-DATA	O	MP3 serial data output to the CD DSP
6	O-MP3-CLK	O	MP3 serial data transfer clock signal output to the CD DSP
7	I-MP3-DATA	I	MP3 serial data input terminal
8	O-CD-XLAT	O	CD serial data latch pulse signa output to the CD DSP
9	I-RMC (SIRCS)	I	Remote control signal input from the remote control receiver
10	O-XLAT-MP3	O	MP3 serial data latch pulse signal output to the CD DSP
11	O-MP3-SSTB	O	System reset signal output to the motor/coil driver
12	O-REQ-MP3	O	MP3 data request signal output to the CD DSP
13	X0A	I	Sub system clock input terminal (32.768 kHz)
14	X1A	O	Sub system clock output terminal (32.768 kHz)
15	VCC	-	Power supply terminal (+3.2V)
16	VSS	-	Ground terminal
17	O-LED-STBY	O	LED drive signal output terminal for STANDBY indicater
18	O-TC-BIAS	O	Recording bias on/off selection signal output terminal "H": bias on, "L": bias off
19	O-TC-REC/PB	O	Recording/playback selection signal output terminal "H": playback mode, "L": recording mode
20	I-TU-SDC	I	Not used
21	I-TC-END SW	I	END switch signal input from the tape mechanism deck
22	O-TC-SOL	O	Trigger plunger on/off control signal output terminal "H": plunger on
23	O-TC-MOTOR	O	Capstan/reel motor on/off control signal output terminal "H": motor on
24	I-TU-SD (TUNED)	I	Tuning detection signal input from the tuner (FM/AM)
25	BACK LIGHT	O	LED drive signal output terminal for liquid crystal display back light
26	-	-	Not used
27	I-TU-RDS-DATA	I	RDS serial data input terminal Not used
28	I-SW_CD-LID	I	CD lid open/close detection switch input terminal "L": CD lid close
29	I-CD-SENS	I	Internal status (SENSE) signal input from the CD DSP
30	O-CD-CLK	O	CD serial data transfer clock signal output to the CD DSP
31	O-CD-DATA	O	CD serial data output to the CD DSP
32	AVCC	-	Power supply terminal (+3.2V)
33	I-TU-DO	I	Serial data input from the tuner (FM/AM)
34	O-CD-XTACN	O	Oscillator control signal output to the CD DSP
35	AVSS	-	Ground terminal
36	I-P-MONI	I	Power monitor input terminal
37	I-KEY_1	I	Front panel key input terminal (A/D input)
38	I-TC-REC/PLAY	I	Recording-proof claw (forward/reverse) detect switch and cassette in detect switch input terminal
39	O-SYS MUTE	O	Line muting on/off control signal output terminal Not used
40	O-AMP MUTE	O	Muting on/off control signal output terminal Not used
41	I-KEY0/WAKE-UP	I	Key interruption processing start signal and front panel key input terminal (A/D input)
42	ACCUT	I	Power down detection signal input terminal "L": power down, normally : "H"
43	I-CD-SCOR	I	Subcode sync (S0+S1) detection signal input from the CD DSP
44	VSS	-	Ground terminal
45	I-TU-RDS-CLK	I	RDS serial data transfer clock signal input terminal Not used

Pin No.	Pin Name	I/O	Description
46	O-POWER	O	Power relay drive signal output terminal "H": on
47	I-SUFFIX	I	Model destination setting terminal
48	I-RE-VOL	I	Dial pulse input of the rotary encoder (for VOLUME control)
49	I-MP3-REQ	I	MP3 data request signal input from the CD DSP
50	I-MP3-ACK	I	MP3 acknowledge signal input from the CD DSP
51 to 53	MD2 to MD0	-	Not used
54	RESET	I	Reset signal input from the reset switch "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
55	O-TU-CE	O	Chip enable signal output to the tuner (FM/AM)
56	O-TU-CLK	O	serial data transfer clock signal output to the tuner (FM/AM)
57	O-TU-DI	O	Serial data output to the tuner (FM/AM)
58	VLCD	-	Terminal for doubler circuit capacitor connection to develop liquid crystal display drive voltage
59 to 62	COM0 to COM3	O	Common drive signal output to the liquid crystal display
63, 64	SEG0, SEG1	O	Segment drive signal output to the liquid crystal display
65	VCC	-	Power supply terminal (+3.2V)
66	GND	-	Ground terminal
67 to 89	SEG2 to SEG24	O	Segment drive signal output to the liquid crystal display
90	VCC	-	Power supply terminal (+3.2V)
91	VSS	-	Ground terminal
92	XI	I	Main system clock input terminal (4.19 MHz)
93	XO	O	Main system clock output terminal (4.19 MHz)
94 to 100	SEG25 to SEG31	O	Segment drive signal output to the liquid crystal display

SECTION 8
EXPLODED VIEWS

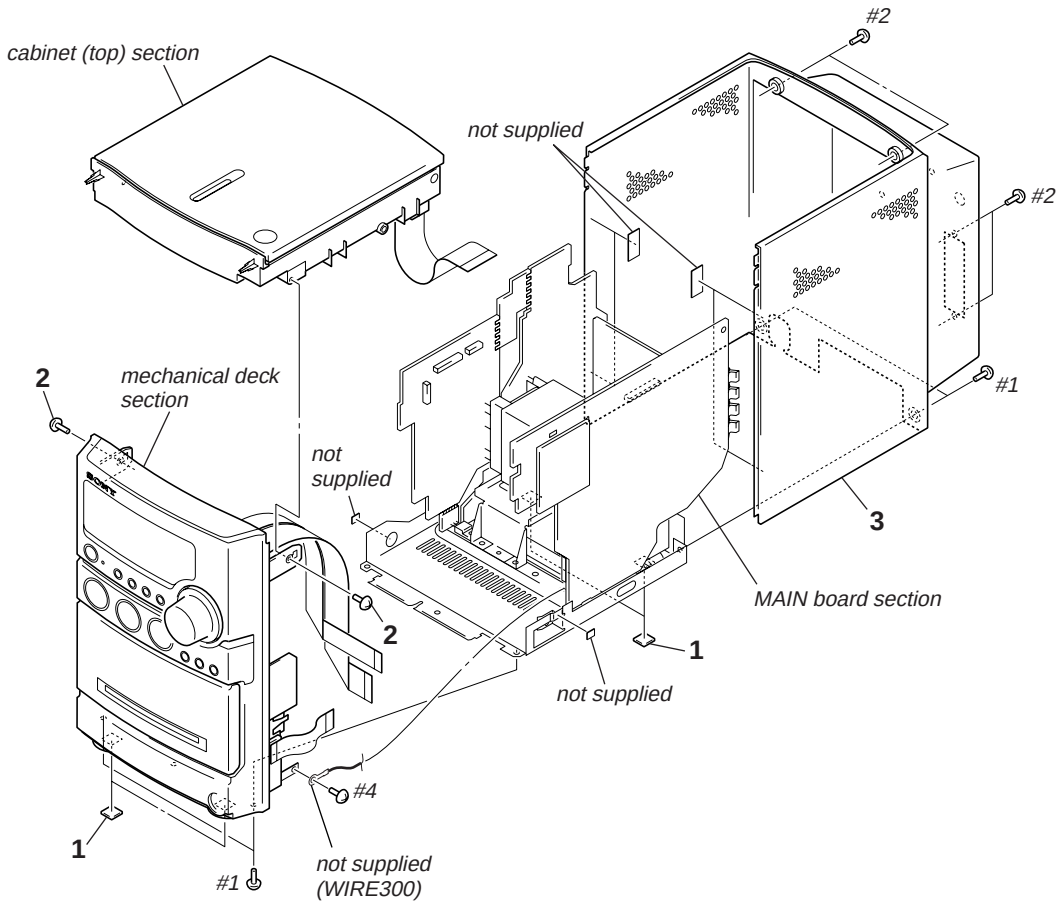
NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Abbreviation
  AR : Argentina model
  CND : Canadian model
  E51 : Chilean and Peruvian models
  MX : Mexican model
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories are given in the last of the electrical parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

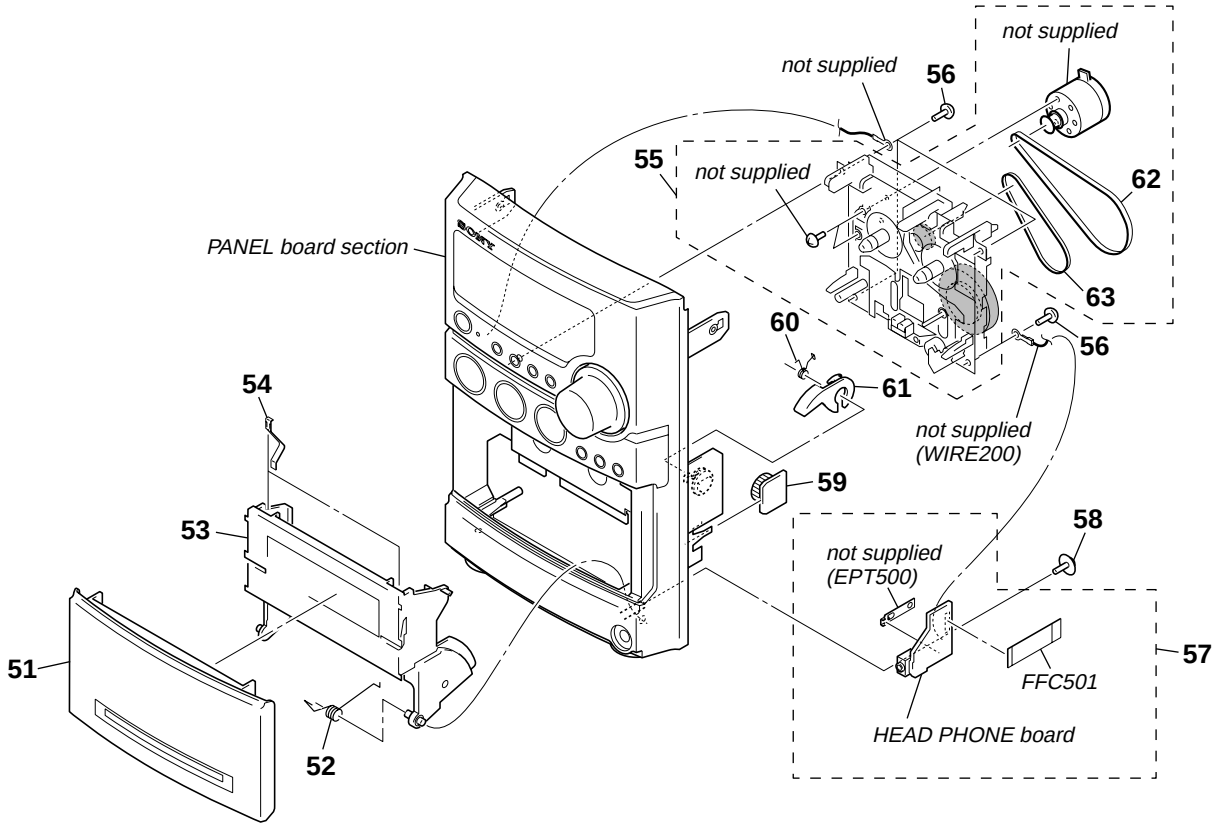
Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

8-1. CABINET SECTION



Ref. No.	Part No.	Description	Remark
1	4-247-752-01	FOOT, RUBBER	
2	3-087-053-01	+BVTP2.6 (3CR)	
3	2-581-397-24	CABINET (US)	
3	2-581-397-33	CABINET (CND)	
3	2-581-399-51	CABINET (MX, AR)	
3	2-581-399-61	CABINET (E, E51)	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	
#4	7-685-871-01	SCREW +BVTT 3X6 (S)	

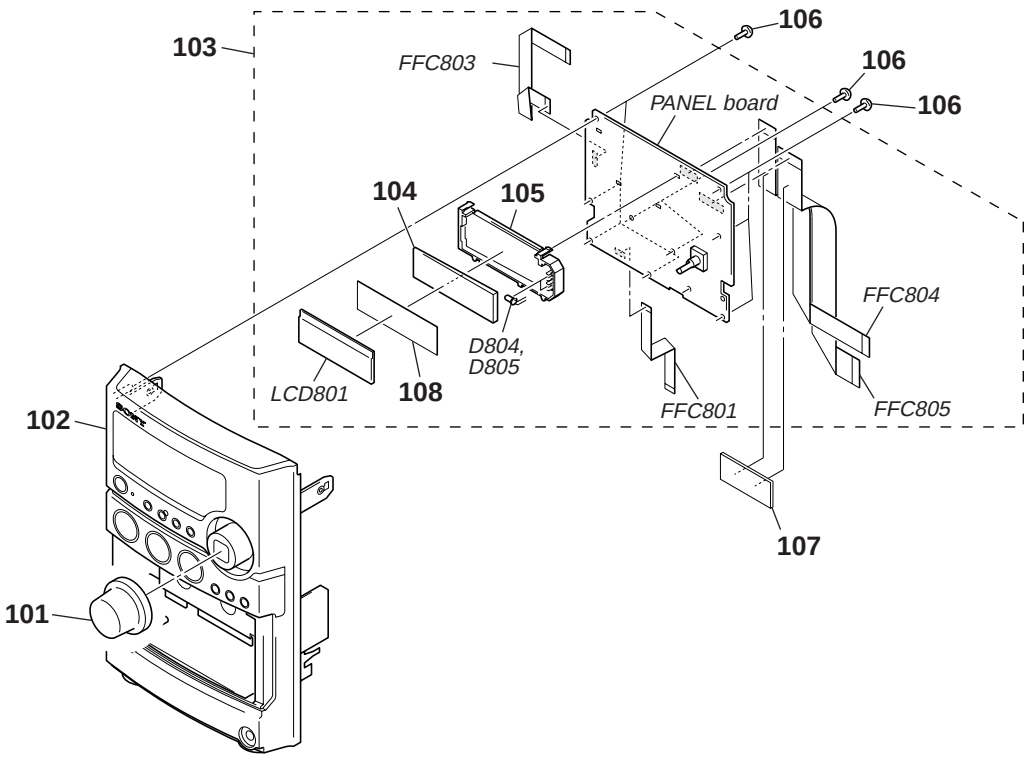
8-2. MECHANICAL DECK SECTION



Ref. No.	Part No.	Description	Remark
51	X-2103-436-1	LID ASSY, CASSETTE	
52	4-245-034-01	SPRING (CASSETTE)	
53	2-581-395-01	HOLDER (CASSETTE)	
54	4-238-631-01	TAPE SPRING	
55	1-797-510-11	DECK, MECHANICAL (CMAL5Z235A)	
56	3-087-053-01	+BVTP2.6 (3CR)	
57	A-1183-398-A	HEAD PHONE BOARD, COMPLETE (US, CND)	
57	A-1158-127-A	HEAD PHONE BOARD, COMPLETE (EXCEPT US, CND)	

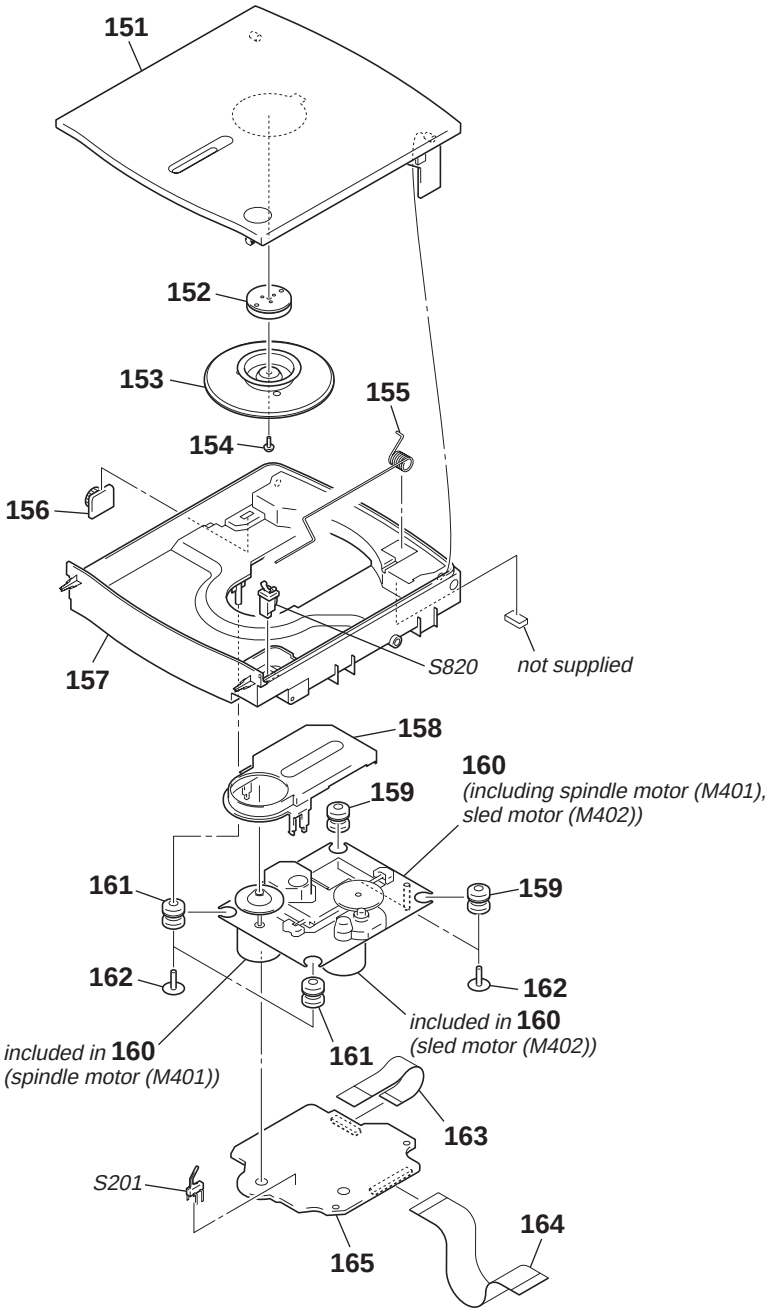
Ref. No.	Part No.	Description	Remark
58	4-933-134-11	SCREW (+PTPWH M2.6X8)	
59	4-224-104-41	DAMPER	
60	4-231-841-01	SPRING (HEART CAM-B)	
61	4-231-825-01	CAM (B), HEART	
62	2-655-725-01	BELT (MAIN)	
63	2-655-726-01	BELT (MO), F/R	
FFC501	1-831-785-21	CABLE, FLEXIBLE FLAT (13 CORE)	

8-3. PANEL BOARD SECTION



Ref. No.	Part No.	Description	Remark
101	2-581-385-21	KNOB (VOL)	
102	X-2103-433-1	PANEL ASSY, FRONT (US)	
102	X-2103-434-1	PANEL ASSY, FRONT (CND)	
102	X-2103-435-1	PANEL ASSY, FRONT (E, E51, MX, AR)	
103	A-1158-131-A	PANEL BOARD, COMPLETE (US, CND)	
103	A-1158-554-A	PANEL BOARD, COMPLETE (EXCEPT US, CND)	
104	2-581-391-01	PLATE, LIGHT GUIDE	
105	2-581-390-01	HOLDER (LCD)	
106	3-087-053-01	+BVTP2.6 (3CR)	
107	2-591-582-02	PLATE (FRONT FFC), PROTECTION	
108	2-586-988-12	SHEET (LCD), DIFFUSION	
D804	6-501-139-01	LED SELU2B10A-SLF62 (LCD BACK LIGHT)	
D805	6-501-139-01	LED SELU2B10A-SLF62 (LCD BACK LIGHT)	
FFC801	1-832-196-21	CABLE, FLEXIBLE FLAT (6 CORE)	
FFC803	1-831-770-21	CABLE, FLEXIBLE FLAT (9 CORE)	
FFC804	1-831-781-21	CABLE, FLEXIBLE FLAT (11 CORE)	
FFC805	1-831-797-21	CABLE, FLEXIBLE FLAT (17 CORE)	
LCD801	1-805-783-21	DISPLAY PANEL, LIQUID CRYSTAL	

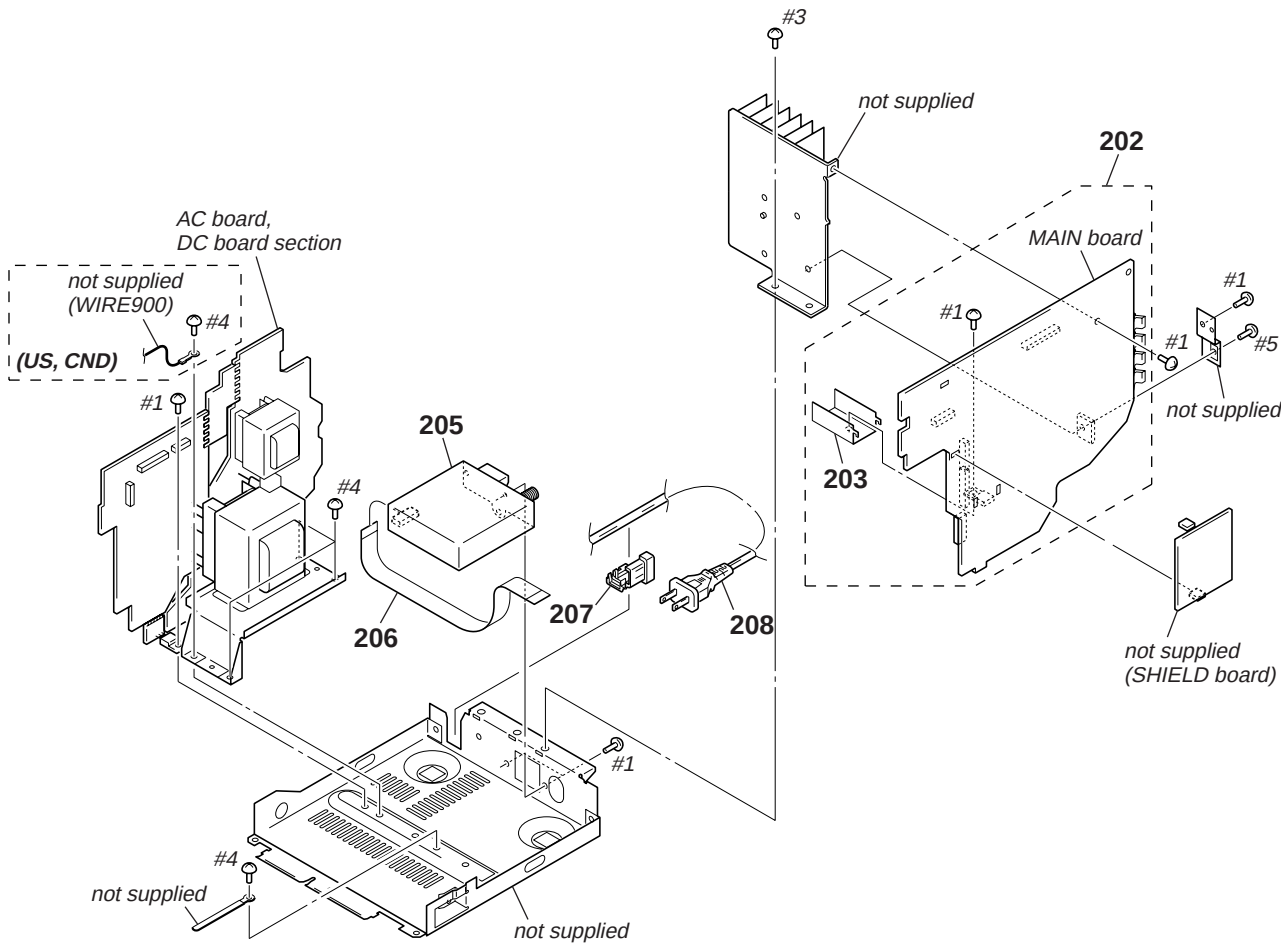
8-4. CABINET (TOP) SECTION



Ref. No.	Part No.	Description	Remark
151	X-2103-437-1	LID ASSY, CD	
152	1-452-899-11	MAGNET	
153	3-019-395-01	PLATE, CHUCKING	
154	3-253-143-01	SCREW (B2.6), (+) P TAPPING	
155	2-581-393-02	SPRING (CD)	
156	4-242-171-01	DAMPER 150 N	
157	2-581-388-01	CABINET (TOP) (US)	
157	2-581-388-11	CABINET (TOP) (EXCEPT US)	
158	4-247-493-01	COVER, CD	
159	3-931-379-21	RUBBER, VIBRATION PROOF (RED)	

Ref. No.	Part No.	Description	Remark
⚠160	8-820-126-01	OPTICAL PICK-UP BLOCK (KSM-213CDP/C2NP) (Including spindle motor (M401), sled motor (M402))	
161	3-931-379-31	RUBBER, VIBRATION PROOF (GREEN)	
162	3-921-725-01	SCREW (2.6X10), +PWH	
163	1-832-404-21	WIRE (FLAT TYPE) (16 CORE)	
164	1-828-378-21	WIRE (FLAT TYPE) (23 CORE)	
165	A-1134-279-A	CD BOARD, COMPLETE	
S201	1-771-853-11	SWITCH, DETECTION (LIMIT)	
S820	1-692-960-11	SWITCH, PUSH (1 KEY) (CD LID OPEN/CLOSE DETECT)	

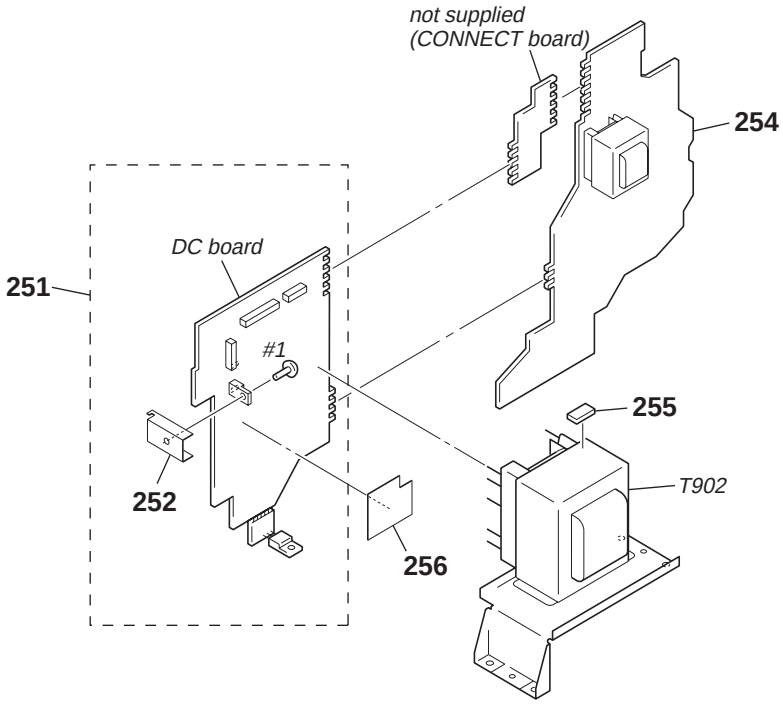
8-5. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remark
202	A-1158-128-A	MAIN BOARD, COMPLETE (US, CND)	
202	A-1158-557-A	MAIN BOARD, COMPLETE (EXCEPT US, CND)	
203	2-586-961-01	HEAT SINK	
205	1-693-705-11	TUNER (FM/AM) (E, E51, MX, AR)	
205	1-693-707-11	TUNER (FM/AM) (US, CND)	
206	1-828-956-21	WIRE (FLAT TYPE) (9 CORE)	
207	3-703-244-00	BUSHING (2104), CORD (US, CND, E51, AR)	
* 207	3-703-571-12	BUSHING (S) (4516), CORD (E, MX)	

Ref. No.	Part No.	Description	Remark
⚠208	1-830-190-11	CORD, POWER (US, CND)	
⚠208	1-830-188-11	CORD, POWER (E51)	
⚠208	1-829-387-11	CORD, POWER (AR)	
⚠208	1-827-226-31	CORD, POWER (E, MX)	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#3	7-685-872-01	SCREW +BVTT 3X8 (S)	
#4	7-685-871-01	SCREW +BVTT 3X6 (S)	
#5	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3	

8-6. AC BOARD, DC BOARD SECTION



Ref. No.	Part No.	Description	Remark
251	A-1158-136-A	DC BOARD, COMPLETE	
252	2-586-961-21	HEAT SINK	
254	A-1158-137-A	AC BOARD, COMPLETE (US, CND)	
254	A-1158-561-A	AC BOARD, COMPLETE (E, E51)	
254	A-1158-562-A	AC BOARD, COMPLETE (MX)	
254	A-1159-730-A	AC BOARD, COMPLETE (AR)	
255	2-594-960-01	SPACER (TRANSFORMER) (E, E51)	
255	2-594-960-11	SPACER (TRANSFORMER) (MX, AR)	
255	2-594-960-21	SPACER (TRANSFORMER) (US, CND)	
256	2-633-205-11	INSULATED PLATE	
⚠T902	1-443-902-11	TRANSFORMER, POWER (US, CND)	
⚠T902	1-443-574-11	TRANSFORMER, POWER (E, E51, MX, AR)	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	

SECTION 9
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Abbreviation
  AR : Argentina model E51 : Chilean and Peruvian models
  CND : Canadian model MX : Mexican model
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA... : µA... uPA... : µPA...
  uPB... : µPB... uPC... : µPC...
  uPD... : µPD...
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	A-1158-137-A	AC BOARD, COMPLETE (US, CND)			
	A-1158-561-A	AC BOARD, COMPLETE (E, E51)			
	A-1158-562-A	AC BOARD, COMPLETE (MX)			
	A-1159-730-A	AC BOARD, COMPLETE (AR)			
		**********			
		< CAPACITOR >			
C914	1-126-964-11	ELECT	10uF	20%	50V
C921	1-126-767-11	ELECT	1000uF	20%	16V
⚠C931	1-113-924-11	CERAMIC	0.0047uF	20%	250V
		< CONNECTOR >			
* CN901	1-793-660-11	PIN, CONNECTOR (PC BOARD) 3P			
		< DIODE >			
D906	6-501-193-01	DIODE 1SS355WTE-17			
D907	8-719-063-79	DIODE 1N4002B			
D908	8-719-063-79	DIODE 1N4002B			
D909	8-719-063-79	DIODE 1N4002B			
D910	8-719-063-79	DIODE 1N4002B			
D922	6-501-193-01	DIODE 1SS355WTE-17			
D923	6-500-335-01	DIODE MC2838-T112-1			
		< LINE FILTER >			
⚠LF901	1-402-663-11	TRANSFORMER, LINE FILTER (LFT)			
		< RESISTOR >			
⚠R903	1-219-512-22	METAL	2.2M	5%	1/2W F (US, CND)
R904	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R905	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R906	1-216-833-11	METAL CHIP	10K	5%	1/10W
R908	1-216-821-11	METAL CHIP	1K	5%	1/10W
R909	1-216-821-11	METAL CHIP	1K	5%	1/10W
		< RELAY >			
⚠RY901	1-755-276-11	RELAY, POWER			
		< SWITCH >			
⚠S901	1-786-055-31	SELECTOR, VOLTAGE (VOLTAGE SELECTOR)			(E, E51)

Ref. No.	Part No.	Description			Remark
		< TRANSFORMER >			
⚠T901	1-443-833-11	TRANSFORMER, POWER (US, CND, MX)			
⚠T901	1-443-908-11	TRANSFORMER, POWER (E, E51, AR)			
**********					
	A-1134-279-A	CD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C102	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C103	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C104	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C105	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C107	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C108	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C109	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C110	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C111	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C112	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C113	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C201	1-128-995-21	ELECT CHIP	100uF	20%	10V
C202	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C203	1-128-995-21	ELECT CHIP	100uF	20%	10V
C204	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C205	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C206	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C207	1-128-995-21	ELECT CHIP	100uF	20%	10V
C208	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C210	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C213	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C214	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C215	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C217	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C218	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C219	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C220	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C221	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C222	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C223	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C224	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C226	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C227	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C230	1-162-927-11	CERAMIC CHIP	100PF	5%	50V

Ref. No.	Part No.	Description			Remark
C232	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C251	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C252	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C253	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C254	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C256	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C257	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C258	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C260	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C261	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C264	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C265	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C266	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C267	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C268	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C271	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C272	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C273	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C274	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C275	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C276	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C277	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C291	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C292	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C301	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C303	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V
C304	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C321	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C322	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C323	1-128-995-21	ELECT CHIP	100uF	20%	10V
C401	1-128-394-11	ELECT CHIP	220uF	20%	10V
C404	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C405	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C406	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C424	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C451	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
		< CONNECTOR >			
CN102	1-770-706-21	CONNECTOR, FFC/FPC 23P			
CN301	1-770-425-51	CONNECTOR, FFC/FPC 16P			
		< IC >			
IC201	8-753-246-30	IC CXD3014A-201R			
IC202	6-708-736-01	IC BD18KA5FP-E2			
IC402	6-705-808-01	IC BA5947FM-E2			
		< TRANSISTOR >			
Q321	6-551-120-01	TRANSISTOR	2SA2119K		
		< RESISTOR/FERRITE BEAD >			
R101	1-216-809-11	METAL CHIP	100	5%	1/10W
R102	1-216-809-11	METAL CHIP	100	5%	1/10W
R103	1-216-809-11	METAL CHIP	100	5%	1/10W
R104	1-216-809-11	METAL CHIP	100	5%	1/10W
R105	1-216-809-11	METAL CHIP	100	5%	1/10W
R107	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R108	1-216-809-11	METAL CHIP	100	5%	1/10W
R109	1-216-809-11	METAL CHIP	100	5%	1/10W
R110	1-216-809-11	METAL CHIP	100	5%	1/10W
R111	1-216-809-11	METAL CHIP	100	5%	1/10W
R112	1-216-809-11	METAL CHIP	100	5%	1/10W
R113	1-216-809-11	METAL CHIP	100	5%	1/10W
R201	1-216-295-00	SHORT CHIP	0		
R202	1-216-295-00	SHORT CHIP	0		
R203	1-500-445-21	FERRITE, EMI (SMD) (2012)			
R207	1-216-295-00	SHORT CHIP	0		
R250	1-216-857-11	METAL CHIP	1M	5%	1/10W
R252	1-216-833-11	METAL CHIP	10K	5%	1/10W
R253	1-216-821-11	METAL CHIP	1K	5%	1/10W
R254	1-216-833-11	METAL CHIP	10K	5%	1/10W
R255	1-216-821-11	METAL CHIP	1K	5%	1/10W
R256	1-216-837-11	METAL CHIP	22K	5%	1/10W
R257	1-216-845-11	METAL CHIP	100K	5%	1/10W
R258	1-216-849-11	METAL CHIP	220K	5%	1/10W
R260	1-216-864-11	SHORT CHIP	0		
R265	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R266	1-216-821-11	METAL CHIP	1K	5%	1/10W
R267	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R268	1-216-833-11	METAL CHIP	10K	5%	1/10W
R270	1-216-821-11	METAL CHIP	1K	5%	1/10W
R271	1-216-857-11	METAL CHIP	1M	5%	1/10W
R275	1-216-809-11	METAL CHIP	100	5%	1/10W
R276	1-216-841-11	METAL CHIP	47K	5%	1/10W
R277	1-216-809-11	METAL CHIP	100	5%	1/10W
R278	1-216-809-11	METAL CHIP	100	5%	1/10W
R280	1-216-864-11	SHORT CHIP	0		
R291	1-216-809-11	METAL CHIP	100	5%	1/10W
R292	1-216-809-11	METAL CHIP	100	5%	1/10W
R321	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R322	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R323	1-216-864-11	SHORT CHIP	0		
R324	1-216-845-11	METAL CHIP	100K	5%	1/10W
R401	1-216-295-00	SHORT CHIP	0		
R421	1-216-864-11	SHORT CHIP	0		
R423	1-216-833-11	METAL CHIP	10K	5%	1/10W
R451	1-216-837-11	METAL CHIP	22K	5%	1/10W
R452	1-216-833-11	METAL CHIP	10K	5%	1/10W
		< VIBRATOR >			
X201	1-795-101-21	VIBRATOR, CERAMIC (16.9344MHz)			
**********					
		CONNECT BOARD			
		**********			
**********					
	A-1158-136-A	DC BOARD, COMPLETE			
		**********			
	2-586-961-21	HEAT SINK			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S			
		< CAPACITOR >			
C336	1-126-965-11	ELECT	22uF	20%	50V

Ref. No.	Part No.	Description			Remark
C350	1-126-964-11	ELECT	10uF	20%	50V
C901	1-136-497-81	FILM	0.1uF	5%	50V
C902	1-136-497-81	FILM	0.1uF	5%	50V
C918	1-104-655-91	ELECT	470uF	20%	6.3V
C919	1-126-943-21	ELECT	2200uF	20%	25V
C920	1-126-933-11	ELECT	100uF	20%	16V
C922	1-126-934-11	ELECT	220uF	20%	16V
C923	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C925	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C930	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN900	1-568-828-11	CONNECTOR, FFC 9P			
CN902	1-819-135-11	PIN, CONNECTOR 7P			
CN903	1-819-132-11	PIN, CONNECTOR 4P			
		< DIODE >			
D322	8-719-000-07	DIODE MC2836			
D911	8-719-046-47	DIODE 1N5401TM			
D912	8-719-046-47	DIODE 1N5401TM			
D913	8-719-046-47	DIODE 1N5401TM			
D914	8-719-046-47	DIODE 1N5401TM			
D916	8-719-046-47	DIODE 1N5401TM			
D917	8-719-046-47	DIODE 1N5401TM			
D918	8-719-046-47	DIODE 1N5401TM			
D919	8-719-046-47	DIODE 1N5401TM			
D920	8-719-000-08	DIODE MC2838			
D926	8-719-063-79	DIODE 1N4002B			
D927	8-719-063-79	DIODE 1N4002B			
D928	8-719-063-79	DIODE 1N4002B			
D929	6-501-193-01	DIODE 1SS355WTE-17			
D930	6-501-193-01	DIODE 1SS355WTE-17			
		< IC >			
IC900	6-709-433-01	IC KIA7810API			
IC901	6-702-771-01	IC TA78033LS			
IC903	6-703-546-01	IC TA7804LS			
		< TRANSISTOR >			
Q315	8-729-142-46	TRANSISTOR	2SC2001-LK		
Q333	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q338	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
		< RESISTOR >			
R901	1-216-837-11	METAL CHIP	22K	5%	1/10W
R902	1-216-837-11	METAL CHIP	22K	5%	1/10W
R911	1-216-841-11	METAL CHIP	47K	5%	1/10W
R912	1-216-841-11	METAL CHIP	47K	5%	1/10W
R913	1-216-841-11	METAL CHIP	47K	5%	1/10W
R914	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R915	1-216-837-11	METAL CHIP	22K	5%	1/10W
R916	1-216-841-11	METAL CHIP	47K	5%	1/10W
R919	1-216-841-11	METAL CHIP	47K	5%	1/10W
R921	1-216-841-11	METAL CHIP	47K	5%	1/10W
R922	1-216-849-11	METAL CHIP	220K	5%	1/10W

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Ref. No.	Part No.	Description			Remark
	A-1158-127-A	HEAD PHONE BOARD, COMPLETE			(EXCEPT US, CND)
	A-1183-398-A	HEAD PHONE BOARD, COMPLETE (US, CND)			
		**********			
		< CAPACITOR >			
C550	1-162-974-11	CERAMIC CHIP	0.01uF		50V (EXCEPT US, CND)
C551	1-162-974-11	CERAMIC CHIP	0.01uF		50V (EXCEPT US, CND)
		< FLAT TYPE WIRE >			
FFC501	1-831-785-21	CABLE, FLEXIBLE FLAT (13 CORE)			
		< JACK >			
J500	1-793-829-11	JACK, HEADPHONE (PHONES)			
		< RESISTOR >			
R519	1-216-817-11	METAL CHIP	470	5%	1/10W
R520	1-216-817-11	METAL CHIP	470	5%	1/10W
R525	1-216-817-11	METAL CHIP	470	5%	1/10W
R526	1-216-817-11	METAL CHIP	470	5%	1/10W
R527	1-216-817-11	METAL CHIP	470	5%	1/10W
R528	1-216-817-11	METAL CHIP	470	5%	1/10W
R529	1-216-813-11	METAL CHIP	220	5%	1/10W
R530	1-216-813-11	METAL CHIP	220	5%	1/10W
R531	1-216-813-11	METAL CHIP	220	5%	1/10W
R532	1-216-813-11	METAL CHIP	220	5%	1/10W
R533	1-216-813-11	METAL CHIP	220	5%	1/10W
R534	1-216-813-11	METAL CHIP	220	5%	1/10W
R541	1-216-833-11	METAL CHIP	10K	5%	1/10W
R542	1-216-833-11	METAL CHIP	10K	5%	1/10W
R543	1-216-833-11	METAL CHIP	10K	5%	1/10W
R544	1-216-833-11	METAL CHIP	10K	5%	1/10W
R545	1-216-833-11	METAL CHIP	10K	5%	1/10W
R546	1-216-833-11	METAL CHIP	10K	5%	1/10W
R547	1-216-833-11	METAL CHIP	10K	5%	1/10W
R548	1-216-833-11	METAL CHIP	10K	5%	1/10W

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	A-1158-128-A	MAIN BOARD, COMPLETE			
		**********			
	2-586-961-01	HEAT SINK			
	7-685-646-01	SCREW +BVTP 3X8 TYPE1			
		< CAPACITOR >			
C101	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C102	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C103	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C104	1-104-665-11	ELECT	100uF	20%	25V
C106	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C107	1-126-961-11	ELECT	2.2uF	20%	50V
C108	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C111	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C113	1-126-957-11	ELECT	0.22uF	20%	50V
C114	1-126-959-11	ELECT	0.47uF	20%	50V
C116	1-162-962-11	CERAMIC CHIP	470PF	10%	50V

Refer to the SUPPLEMENT-1 for the MAIN board of electrical parts list of except US and Canadian models.
When repairing the set of US and Canadian models, refer to either of original service manual/SUPPLEMENT-1 according to the set.

Ref. No.	Part No.	Description			Remark
C117	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C118	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C119	1-100-597-91	CERAMIC CHIP	0.1uF	10%	25V
C120	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C121	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C122	1-100-597-91	CERAMIC CHIP	0.1uF	10%	25V
C126	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C127	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C133	1-130-491-00	MYLAR	0.047uF	5%	50V
C135	1-126-964-11	ELECT	10uF	20%	50V
C138	1-126-965-11	ELECT	22uF	20%	50V
C139	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C140	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C201	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C202	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C203	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C204	1-104-665-11	ELECT	100uF	20%	25V
C206	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C207	1-126-961-11	ELECT	2.2uF	20%	50V
C208	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C211	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C213	1-126-957-11	ELECT	0.22uF	20%	50V
C214	1-126-959-11	ELECT	0.47uF	20%	50V
C216	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C217	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C218	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C219	1-100-597-91	CERAMIC CHIP	0.1uF	10%	25V
C220	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C221	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C222	1-100-597-91	CERAMIC CHIP	0.1uF	10%	25V
C226	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C227	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C233	1-130-491-00	MYLAR	0.047uF	5%	50V
C235	1-126-964-11	ELECT	10uF	20%	50V
C238	1-126-965-11	ELECT	22uF	20%	50V
C239	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C240	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C301	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C302	1-126-934-11	ELECT	220uF	20%	16V
C303	1-130-479-00	MYLAR	0.0047uF	5%	50V
C304	1-130-479-00	MYLAR	0.0047uF	5%	50V
C305	1-126-934-11	ELECT	220uF	20%	16V
C306	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C309	1-126-926-11	ELECT	1000uF	20%	10V
C310	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C311	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C312	1-126-963-11	ELECT	4.7uF	20%	50V
C313	1-126-933-11	ELECT	100uF	20%	16V
C314	1-130-483-00	MYLAR	0.01uF	5%	50V
C315	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C316	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C317	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C318	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C319	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C321	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C322	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C325	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C326	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C327	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C328	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C330	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C331	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C335	1-126-933-11	ELECT	100uF	20%	16V
C337	1-126-935-11	ELECT	470uF	20%	16V
C338	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C345	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C347	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C348	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C349	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C351	1-104-665-11	ELECT	100uF	20%	25V
C352	1-126-953-11	ELECT	2200uF	20%	35V
C353	1-126-953-11	ELECT	2200uF	20%	35V
C354	1-126-947-11	ELECT	47uF	20%	35V
C355	1-130-487-00	MYLAR	0.022uF	5%	50V
C356	1-130-471-00	MYLAR	0.001uF	5%	50V
C357	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C358	1-130-483-00	MYLAR	0.01uF	5%	50V
C359	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C360	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C361	1-126-947-11	ELECT	47uF	20%	35V
C362	1-126-964-11	ELECT	10uF	20%	50V
C363	1-126-964-11	ELECT	10uF	20%	50V
C364	1-126-964-11	ELECT	10uF	20%	50V
C365	1-126-963-11	ELECT	4.7uF	20%	50V
C366	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C367	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C501	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C502	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C503	1-126-947-11	ELECT	47uF	20%	35V
C504	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C505	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C506	1-126-947-11	ELECT	47uF	20%	35V
C507	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C509	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C510	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C515	1-126-935-11	ELECT	470uF	20%	16V
C523	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C524	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C525	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C526	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C527	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C528	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C529	1-126-948-11	ELECT	100uF	20%	35V
C530	1-126-948-11	ELECT	100uF	20%	35V
		< CONNECTOR >			
* CN301	1-815-448-11	PIN, CONNECTOR (PWB) 7P			
CN317	1-779-291-11	CONNECTOR, FFC (LIF (NON-ZIF)) 23P			
CN319	1-568-828-11	CONNECTOR, FFC 9P			
CN320	1-568-830-11	CONNECTOR, FFC 11P			
CN321	1-784-778-11	CONNECTOR, FFC 17P			
CN500	1-784-735-11	CONNECTOR, FFC 13P			
		< DIODE >			
D301	6-500-848-01	DIODE MC2840-T112-1			

MAIN

Ref. No.	Part No.	Description			Remark
D303	8-719-063-79	DIODE 1N4002B			
D304	8-719-063-79	DIODE 1N4002B			
D307	8-719-988-61	DIODE 1SS355TE-17			
D319	6-500-848-01	DIODE MC2840-T112-1			
D320	6-500-848-01	DIODE MC2840-T112-1			
D321	8-719-988-61	DIODE 1SS355TE-17			
D323	8-719-083-60	DIODE UDZSTE-174.7B			
D324	8-719-083-60	DIODE UDZSTE-174.7B			
D325	6-500-848-01	DIODE MC2840-T112-1			
D327	6-500-848-01	DIODE MC2840-T112-1			
		< JUMPER RESISTOR >			
FB304	1-216-864-11	SHORT CHIP	0		
FB305	1-216-864-11	SHORT CHIP	0		
FB306	1-216-864-11	SHORT CHIP	0		
FB317	1-216-864-11	SHORT CHIP	0		
		< IC >			
IC302	6-702-895-01	IC BD3881FV			
IC303	8-759-394-36	IC BA09T			
IC501	6-707-994-01	IC STK453-030A			
		< JACK >			
J302	1-780-275-11	TERMINAL BOARD, PUSH (4P) (SPEAKER)			
J321	1-815-629-11	JACK (AUDIO IN)			
		< RESISTOR >			
JR100	1-216-864-11	SHORT CHIP	0		
JR103	1-216-864-11	SHORT CHIP	0		
JR115	1-216-864-11	SHORT CHIP	0		
JR136	1-216-837-11	METAL CHIP	22K	5%	1/10W
JR137	1-216-864-11	SHORT CHIP	0		
JR152	1-216-864-11	SHORT CHIP	0		
JR215	1-216-864-11	SHORT CHIP	0		
JR236	1-216-837-11	METAL CHIP	22K	5%	1/10W
JR301	1-216-864-11	SHORT CHIP	0		
JR500	1-216-864-11	SHORT CHIP	0		
		< COIL >			
L101	1-422-009-13	COIL, AIR-CORE			
L201	1-422-009-13	COIL, AIR-CORE			
		< TRANSISTOR >			
Q318	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q319	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q320	8-729-045-62	FET	2SK2158-T2B		
Q326	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q327	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q328	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q329	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q332	8-729-600-22	TRANSISTOR	2SA1235-F		
Q334	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q335	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q342	8-729-600-22	TRANSISTOR	2SA1235-F		
Q343	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q344	8-729-142-46	TRANSISTOR	2SC2001-LK		
Q347	8-729-037-03	TRANSISTOR	KTA1266GR-AT		
Q348	8-729-027-43	TRANSISTOR	DTC114EKA-T146		

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R100	1-216-833-11	METAL CHIP	10K	5%	1/10W
R101	1-216-841-11	METAL CHIP	47K	5%	1/10W
R102	1-216-841-11	METAL CHIP	47K	5%	1/10W
R103	1-216-817-11	METAL CHIP	470	5%	1/10W
R104	1-216-805-11	METAL CHIP	47	5%	1/10W
R105	1-216-849-11	METAL CHIP	220K	5%	1/10W
R106	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R107	1-216-845-11	METAL CHIP	100K	5%	1/10W
R108	1-216-833-11	METAL CHIP	10K	5%	1/10W
R109	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R110	1-216-821-11	METAL CHIP	1K	5%	1/10W
R111	1-216-837-11	METAL CHIP	22K	5%	1/10W
R112	1-216-837-11	METAL CHIP	22K	5%	1/10W
R114	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R116	1-216-841-11	METAL CHIP	47K	5%	1/10W
R117	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R118	1-216-833-11	METAL CHIP	10K	5%	1/10W
R119	1-216-833-11	METAL CHIP	10K	5%	1/10W
R120	1-216-833-11	METAL CHIP	10K	5%	1/10W
R121	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R122	1-216-853-11	METAL CHIP	470K	5%	1/10W
R123	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R124	1-216-837-11	METAL CHIP	22K	5%	1/10W
R125	1-216-837-11	METAL CHIP	22K	5%	1/10W
R126	1-216-864-11	SHORT CHIP	0		
R128	1-216-821-11	METAL CHIP	1K	5%	1/10W
R129	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R130	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R131	1-216-821-11	METAL CHIP	1K	5%	1/10W
R132	1-216-821-11	METAL CHIP	1K	5%	1/10W
R133	1-216-864-11	SHORT CHIP	0		
R134	1-216-864-11	SHORT CHIP	0		
R135	1-216-845-11	METAL CHIP	100K	5%	1/10W
R136	1-216-833-11	METAL CHIP	10K	5%	1/10W
R137	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R138	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R139	1-216-837-11	METAL CHIP	22K	5%	1/10W
R143	1-216-833-11	METAL CHIP	10K	5%	1/10W
R145	1-216-864-11	SHORT CHIP	0		
R147	1-216-837-11	METAL CHIP	22K	5%	1/10W
R148	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R149	1-216-833-11	METAL CHIP	10K	5%	1/10W
R153	1-260-304-51	CARBON	10	5%	1/2W
R200	1-216-833-11	METAL CHIP	10K	5%	1/10W
R201	1-216-841-11	METAL CHIP	47K	5%	1/10W
R202	1-216-841-11	METAL CHIP	47K	5%	1/10W
R203	1-216-817-11	METAL CHIP	470	5%	1/10W
R204	1-216-805-11	METAL CHIP	47	5%	1/10W
R205	1-216-849-11	METAL CHIP	220K	5%	1/10W
R206	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R207	1-216-845-11	METAL CHIP	100K	5%	1/10W
R208	1-216-833-11	METAL CHIP	10K	5%	1/10W
R209	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R210	1-216-821-11	METAL CHIP	1K	5%	1/10W
R211	1-216-837-11	METAL CHIP	22K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R212	1-216-837-11	METAL CHIP	22K	5%	1/10W
R214	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R216	1-216-841-11	METAL CHIP	47K	5%	1/10W
R217	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R218	1-216-833-11	METAL CHIP	10K	5%	1/10W
R219	1-216-833-11	METAL CHIP	10K	5%	1/10W
R220	1-216-833-11	METAL CHIP	10K	5%	1/10W
R221	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R222	1-216-853-11	METAL CHIP	470K	5%	1/10W
R223	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R224	1-216-837-11	METAL CHIP	22K	5%	1/10W
R225	1-216-837-11	METAL CHIP	22K	5%	1/10W
R226	1-216-864-11	SHORT CHIP	0		
R228	1-216-821-11	METAL CHIP	1K	5%	1/10W
R229	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R230	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R231	1-216-821-11	METAL CHIP	1K	5%	1/10W
R232	1-216-821-11	METAL CHIP	1K	5%	1/10W
R233	1-216-864-11	SHORT CHIP	0		
R234	1-216-864-11	SHORT CHIP	0		
R235	1-216-845-11	METAL CHIP	100K	5%	1/10W
R236	1-216-833-11	METAL CHIP	10K	5%	1/10W
R237	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R238	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R239	1-216-837-11	METAL CHIP	22K	5%	1/10W
R243	1-216-833-11	METAL CHIP	10K	5%	1/10W
R245	1-216-864-11	SHORT CHIP	0		
R247	1-216-837-11	METAL CHIP	22K	5%	1/10W
R248	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R249	1-216-833-11	METAL CHIP	10K	5%	1/10W
R253	1-260-304-51	CARBON	10	5%	1/2W
R301	1-216-837-11	METAL CHIP	22K	5%	1/10W
R302	1-216-845-11	METAL CHIP	100K	5%	1/10W
R303	1-216-833-11	METAL CHIP	10K	5%	1/10W
R304	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R305	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R306	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R307	1-216-821-11	METAL CHIP	1K	5%	1/10W
R308	1-216-821-11	METAL CHIP	1K	5%	1/10W
R309	1-216-821-11	METAL CHIP	1K	5%	1/10W
R310	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R311	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R312	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R313	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R314	1-216-833-11	METAL CHIP	10K	5%	1/10W
R315	1-216-833-11	METAL CHIP	10K	5%	1/10W
R316	1-216-833-11	METAL CHIP	10K	5%	1/10W
R317	1-216-833-11	METAL CHIP	10K	5%	1/10W
R319	1-216-837-11	METAL CHIP	22K	5%	1/10W
R332	1-216-833-11	METAL CHIP	10K	5%	1/10W
R333	1-216-833-11	METAL CHIP	10K	5%	1/10W
R334	1-216-849-11	METAL CHIP	220K	5%	1/10W
R335	1-216-833-11	METAL CHIP	10K	5%	1/10W
R336	1-216-841-11	METAL CHIP	47K	5%	1/10W
R337	1-216-841-11	METAL CHIP	47K	5%	1/10W
R338	1-216-853-11	METAL CHIP	470K	5%	1/10W
R339	1-216-853-11	METAL CHIP	470K	5%	1/10W
R340	1-216-853-11	METAL CHIP	470K	5%	1/10W
R358	1-216-841-11	METAL CHIP	47K	5%	1/10W
R362	1-216-837-11	METAL CHIP	22K	5%	1/10W
R366	1-216-837-11	METAL CHIP	22K	5%	1/10W
R367	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R368	1-216-833-11	METAL CHIP	10K	5%	1/10W
R369	1-216-833-11	METAL CHIP	10K	5%	1/10W
R370	1-216-833-11	METAL CHIP	10K	5%	1/10W
R371	1-216-833-11	METAL CHIP	10K	5%	1/10W
R376	1-216-845-11	METAL CHIP	100K	5%	1/10W
R377	1-216-817-11	METAL CHIP	470	5%	1/10W
R378	1-216-817-11	METAL CHIP	470	5%	1/10W
R379	1-216-817-11	METAL CHIP	470	5%	1/10W
R380	1-216-817-11	METAL CHIP	470	5%	1/10W
R381	1-216-817-11	METAL CHIP	470	5%	1/10W
R382	1-216-817-11	METAL CHIP	470	5%	1/10W
R383	1-216-813-11	METAL CHIP	220	5%	1/10W
R384	1-216-813-11	METAL CHIP	220	5%	1/10W
R385	1-260-328-11	CARBON	1K	5%	1/2W
R386	1-260-087-11	CARBON	100	5%	1/2W
R387	1-216-833-11	METAL CHIP	10K	5%	1/10W
R388	1-216-833-11	METAL CHIP	10K	5%	1/10W
R389	1-216-833-11	METAL CHIP	10K	5%	1/10W
R390	1-216-845-11	METAL CHIP	100K	5%	1/10W
R501	1-216-821-11	METAL CHIP	1K	5%	1/10W
R502	1-216-841-11	METAL CHIP	47K	5%	1/10W
R503	1-216-817-11	METAL CHIP	470	5%	1/10W
R504	1-216-841-11	METAL CHIP	47K	5%	1/10W
R505	1-216-841-11	METAL CHIP	47K	5%	1/10W
R506	1-216-821-11	METAL CHIP	1K	5%	1/10W
R508	1-216-817-11	METAL CHIP	470	5%	1/10W
R509	1-216-841-11	METAL CHIP	47K	5%	1/10W
R512	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R513	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R514	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R517	1-216-841-11	METAL CHIP	47K	5%	1/10W
R518	1-216-841-11	METAL CHIP	47K	5%	1/10W
R521	1-216-833-11	METAL CHIP	10K	5%	1/10W
R523	1-216-809-11	METAL CHIP	100	5%	1/10W
R524	1-216-809-11	METAL CHIP	100	5%	1/10W
R535	1-260-087-11	CARBON	100	5%	1/2W
R536	1-260-087-11	CARBON	100	5%	1/2W
R537	1-216-821-11	METAL CHIP	1K	5%	1/10W
R538	1-216-833-11	METAL CHIP	10K	5%	1/10W
R539	1-216-833-11	METAL CHIP	10K	5%	1/10W
R540	1-216-833-11	METAL CHIP	10K	5%	1/10W

< TRANSFORMER >

T301	1-443-760-11	TRANSFORMER, BIAS OSCILLATION	

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	A-1158-131-A	PANEL BOARD, COMPLETE (US, CND)
	A-1158-554-A	PANEL BOARD, COMPLETE (EXCEPT US, CND)
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	2-581-390-01	HOLDER (LCD)
	2-581-391-01	PLATE, LIGHT GUIDE
	2-586-988-12	SHEET (LCD), DIFFUSION

PANEL

Ref. No.	Part No.	Description			Remark
		< CAPACITOR >			
C801	1-124-234-00	ELECT	22uF	20%	16V
C802	1-124-584-00	ELECT	100uF	20%	6.3V
C803	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C804	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C805	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C806	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C807	1-126-518-11	ELECT	470uF	20%	4V
C808	1-124-589-11	ELECT	47uF	20%	16V
C809	1-124-234-00	ELECT	22uF	20%	16V
C811	1-126-157-11	ELECT	10uF	20%	16V
C812	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C815	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C816	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C817	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C818	1-126-518-11	ELECT	470uF	20%	4V
C819	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C820	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C821	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C822	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C823	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C826	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C827	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C828	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C829	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C832	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C833	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C834	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C859	1-124-259-11	ELECT	4.7uF	20%	50V
		< DIODE >			
D801	6-501-193-01	DIODE 1SS355WTE-17			
D804	6-501-139-01	LED SELU2B10A-SLF62 (LCD BACK LIGHT)			
D805	6-501-139-01	LED SELU2B10A-SLF62 (LCD BACK LIGHT)			
D806	8-719-063-93	LED SLR325VC-N-T32 (STANDBY)			
D807	6-501-193-01	DIODE 1SS355WTE-17			
D809	8-719-000-07	DIODE MC2836			
		< FLAT TYPE WIRE >			
FFC801	1-832-196-21	CABLE, FLEXIBLE FLAT (6 CORE)			
FFC803	1-831-770-21	CABLE, FLEXIBLE FLAT (9 CORE)			
FFC804	1-831-781-21	CABLE, FLEXIBLE FLAT (11 CORE)			
FFC805	1-831-797-21	CABLE, FLEXIBLE FLAT (17 CORE)			
		< IC >			
IC801	6-806-626-01	IC MB90803PF-G-115E1			
IC802	6-600-349-21	IC NJL23H400A			
IC803	8-759-713-61	IC PST3429UL			
		< JUMPER RESISTOR >			
JR708	1-216-864-11	SHORT CHIP	0		
JR709	1-216-864-11	SHORT CHIP	0		
JR710	1-216-864-11	SHORT CHIP	0		
JR711	1-216-864-11	SHORT CHIP	0		
JR712	1-216-864-11	SHORT CHIP	0		
JR713	1-216-864-11	SHORT CHIP	0		
JR714	1-216-864-11	SHORT CHIP	0		

Ref. No.	Part No.	Description			Remark
JR715	1-216-864-11	SHORT CHIP	0		
JR717	1-216-864-11	SHORT CHIP	0		
JR719	1-216-864-11	SHORT CHIP	0		
JR720	1-216-864-11	SHORT CHIP	0		
JR722	1-216-864-11	SHORT CHIP	0		
JR723	1-216-864-11	SHORT CHIP	0		
JR724	1-216-864-11	SHORT CHIP	0		
JR725	1-216-864-11	SHORT CHIP	0		
JR726	1-216-864-11	SHORT CHIP	0		
JR727	1-216-864-11	SHORT CHIP	0		
		< LIQUID CRYSTAL DISPLAY >			
LCD801	1-805-783-21	DISPLAY PANEL, LIQUID CRYSTAL			
		< TRANSISTOR >			
Q801	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q802	8-729-037-13	TRANSISTOR	KTA1271Y		
Q803	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q804	8-729-037-13	TRANSISTOR	KTA1271Y		
Q805	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q807	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q808	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
		< RESISTOR >			
R701	1-216-821-11	METAL CHIP	1K	5%	1/10W
R702	1-216-821-11	METAL CHIP	1K	5%	1/10W
R703	1-216-821-11	METAL CHIP	1K	5%	1/10W
R704	1-216-821-11	METAL CHIP	1K	5%	1/10W
R707	1-216-845-11	METAL CHIP	100K	5%	1/10W
R708	1-216-837-11	METAL CHIP	22K	5%	1/10W (EXCEPT US, CND)
R709	1-216-833-11	METAL CHIP	10K	5%	1/10W
R710	1-216-821-11	METAL CHIP	1K	5%	1/10W
R711	1-216-817-11	METAL CHIP	470	5%	1/10W
R712	1-216-821-11	METAL CHIP	1K	5%	1/10W
R713	1-216-821-11	METAL CHIP	1K	5%	1/10W
R715	1-216-809-11	METAL CHIP	100	5%	1/10W
R716	1-216-809-11	METAL CHIP	100	5%	1/10W
R717	1-216-809-11	METAL CHIP	100	5%	1/10W
R718	1-216-809-11	METAL CHIP	100	5%	1/10W
R719	1-216-809-11	METAL CHIP	100	5%	1/10W
R720	1-216-809-11	METAL CHIP	100	5%	1/10W
R721	1-216-864-11	SHORT CHIP	0		
R722	1-216-813-11	METAL CHIP	220	5%	1/10W
R723	1-216-809-11	METAL CHIP	100	5%	1/10W
R724	1-216-864-11	SHORT CHIP	0		
R725	1-216-821-11	METAL CHIP	1K	5%	1/10W
R726	1-216-821-11	METAL CHIP	1K	5%	1/10W
R727	1-216-809-11	METAL CHIP	100	5%	1/10W
R803	1-216-809-11	METAL CHIP	100	5%	1/10W
R804	1-216-809-11	METAL CHIP	100	5%	1/10W
R805	1-216-864-11	SHORT CHIP	0		
R806	1-216-821-11	METAL CHIP	1K	5%	1/10W
R807	1-216-809-11	METAL CHIP	100	5%	1/10W
R808	1-216-809-11	METAL CHIP	100	5%	1/10W
R810	1-216-809-11	METAL CHIP	100	5%	1/10W
R811	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R812	1-216-809-11	METAL CHIP	100	5%	1/10W
R813	1-216-809-11	METAL CHIP	100	5%	1/10W
R814	1-216-809-11	METAL CHIP	100	5%	1/10W
R815	1-216-821-11	METAL CHIP	1K	5%	1/10W
R816	1-216-809-11	METAL CHIP	100	5%	1/10W
R817	1-216-841-11	METAL CHIP	47K	5%	1/10W
R818	1-216-849-11	METAL CHIP	220K	5%	1/10W
R819	1-216-833-11	METAL CHIP	10K	5%	1/10W
R820	1-216-845-11	METAL CHIP	100K	5%	1/10W
R822	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R824	1-216-809-11	METAL CHIP	100	5%	1/10W
R825	1-216-809-11	METAL CHIP	100	5%	1/10W
R826	1-216-809-11	METAL CHIP	100	5%	1/10W
R827	1-216-809-11	METAL CHIP	100	5%	1/10W
R828	1-216-809-11	METAL CHIP	100	5%	1/10W
R829	1-216-833-11	METAL CHIP	10K	5%	1/10W
R830	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R831	1-216-845-11	METAL CHIP	100K	5%	1/10W
R832	1-216-809-11	METAL CHIP	100	5%	1/10W
R833	1-216-809-11	METAL CHIP	100	5%	1/10W
R835	1-216-809-11	METAL CHIP	100	5%	1/10W
R836	1-216-809-11	METAL CHIP	100	5%	1/10W
R837	1-216-809-11	METAL CHIP	100	5%	1/10W
R839	1-216-809-11	METAL CHIP	100	5%	1/10W
R840	1-216-833-11	METAL CHIP	10K	5%	1/10W
R841	1-216-821-11	METAL CHIP	1K	5%	1/10W
R842	1-216-833-11	METAL CHIP	10K	5%	1/10W
R843	1-216-833-11	METAL CHIP	10K	5%	1/10W
R844	1-216-837-11	METAL CHIP	22K	5%	1/10W
R845	1-216-833-11	METAL CHIP	10K	5%	1/10W
R846	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R847	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R848	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R849	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R850	1-216-821-11	METAL CHIP	1K	5%	1/10W
R851	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R852	1-216-821-11	METAL CHIP	1K	5%	1/10W
R853	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R854	1-216-864-11	SHORT CHIP	0		
R856	1-216-853-11	METAL CHIP	470K	5%	1/10W
R857	1-216-833-11	METAL CHIP	10K	5%	1/10W
R858	1-216-833-11	METAL CHIP	10K	5%	1/10W
R859	1-216-841-11	METAL CHIP	47K	5%	1/10W
R860	1-216-841-11	METAL CHIP	47K	5%	1/10W
R861	1-216-837-11	METAL CHIP	22K	5%	1/10W
R862	1-216-809-11	METAL CHIP	100	5%	1/10W
R863	1-216-809-11	METAL CHIP	100	5%	1/10W
R868	1-216-841-11	METAL CHIP	47K	5%	1/10W
R869	1-216-833-11	METAL CHIP	10K	5%	1/10W
R870	1-216-864-11	SHORT CHIP	0		
R871	1-216-833-11	METAL CHIP	10K	5%	1/10W
R872	1-216-821-11	METAL CHIP	1K	5%	1/10W
R873	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R874	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R875	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R876	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (EXCEPT US, CND)

Ref. No.	Part No.	Description			Remark
R877	1-216-833-11	METAL CHIP	10K	5%	1/10W (EXCEPT US, CND)
R878	1-216-833-11	METAL CHIP	10K	5%	1/10W
R879	1-216-821-11	METAL CHIP	1K	5%	1/10W
R880	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R881	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R882	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R883	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R884	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R885	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R886	1-216-864-11	SHORT CHIP	0		
		< ROTARY ENCODER >			
RV801	1-479-195-11	ENCODER (VOLUME)			
		< SWITCH >			
S801	1-786-050-21	SWITCH, KEY BOARD (I/⏻)			
S802	1-786-050-21	SWITCH, KEY BOARD (DSGX)			
S803	1-786-050-21	SWITCH, KEY BOARD (CD SYNC)			
S804	1-786-050-21	SWITCH, KEY BOARD (● PAUSE/START)			
S805	1-786-050-21	SWITCH, KEY BOARD (PLAY MODE/TUNING MODE)			
S806	1-786-050-21	SWITCH, KEY BOARD (FOLDER –) (EXCEPT US, CND)			
S807	1-786-050-21	SWITCH, KEY BOARD (FOLDER +) (EXCEPT US, CND)			
S808	1-786-050-21	SWITCH, KEY BOARD (TAPE ►)			
S809	1-786-050-21	SWITCH, KEY BOARD (CD ►II)			
S810	1-786-050-21	SWITCH, KEY BOARD (TUNER/BAND)			
S811	1-786-050-21	SWITCH, KEY BOARD (■)			
S812	1-786-050-21	SWITCH, KEY BOARD (TUNING –, ⏮ ◄◄)			
S813	1-786-050-21	SWITCH, KEY BOARD (TUNING +, ►► ⏭)			
		< VIBRATOR >			
X801	1-579-463-11	VIBRATOR, CRYSTAL (32.768kHz)			
X802	1-795-054-61	VIBRATOR, CERAMIC (10MHz)			
**********					
		SHIELD BOARD			
		**********			
**********					
		MISCELLANEOUS			
		**********			
55	1-797-510-11	DECK, MECHANICAL (CMAL5Z235A)			
152	1-452-899-11	MAGNET			
⚠160	8-820-126-01	OPTICAL PICK-UP BLOCK(KSM-213CDP/C2NP) (Including spindle motor (M401), sled motor (M402))			
163	1-832-404-21	WIRE (FLAT TYPE) (16 CORE)			
164	1-828-378-21	WIRE (FLAT TYPE) (23 CORE)			
205	1-693-707-11	TUNER (FM/AM)			
206	1-828-956-21	WIRE (FLAT TYPE) (9 CORE)			
⚠208	1-830-190-11	CORD, POWER			
S201	1-771-853-11	SWITCH, DETECTION (LIMIT)			
S820	1-692-960-21	SWITCH, PUSH (1 KEY) (CD LID OPEN/CLOSE DETECT)			
⚠T902	1-443-902-11	TRANSFORMER, POWER			

MEMO

HCD-NEZ30

SONY

SERVICE MANUAL

US Model
Canadian Model
E Model

Ver. 1.3 2006.05

SUPPLEMENT-1

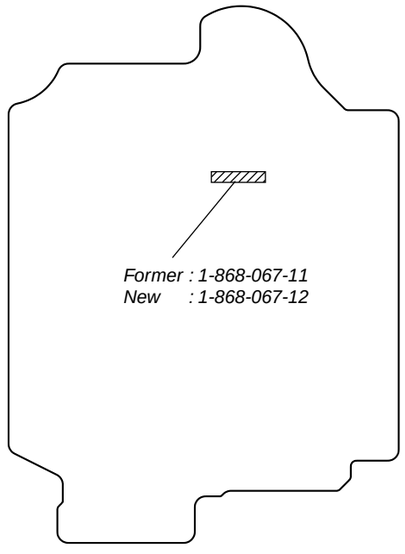
File this supplement with the service manual.

Subject: Change of CD board (Suffix-12)
Change of MAIN board (Suffix-12/-13/-14)

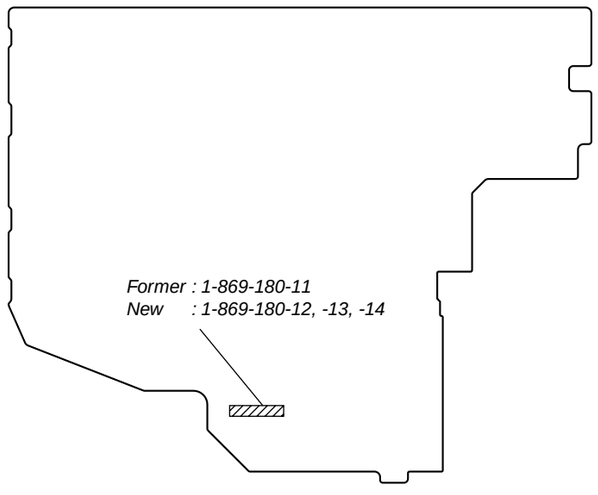
In this set, CD and MAIN boards have been changed in the midway of production.
Printed wiring boards and schematic diagrams of new type, and changed parts list are described in this supplement-1.
Refer to original service manual for other information.

1. NEW/FORMER DESCRIPTION

– CD Board (Component Side) –



– MAIN Board (Component Side) –



2. DIAGRAMS

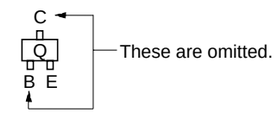
- **Note for Printed Wiring Boards and Schematic Diagrams**

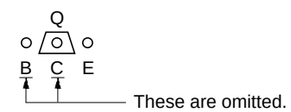
Note on Printed Wiring Board:
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- △ : internal component.
- ▭ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

- Indication of transistor





Note on Schematic Diagram:
- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : nonflammable resistor.
- : panel designation.

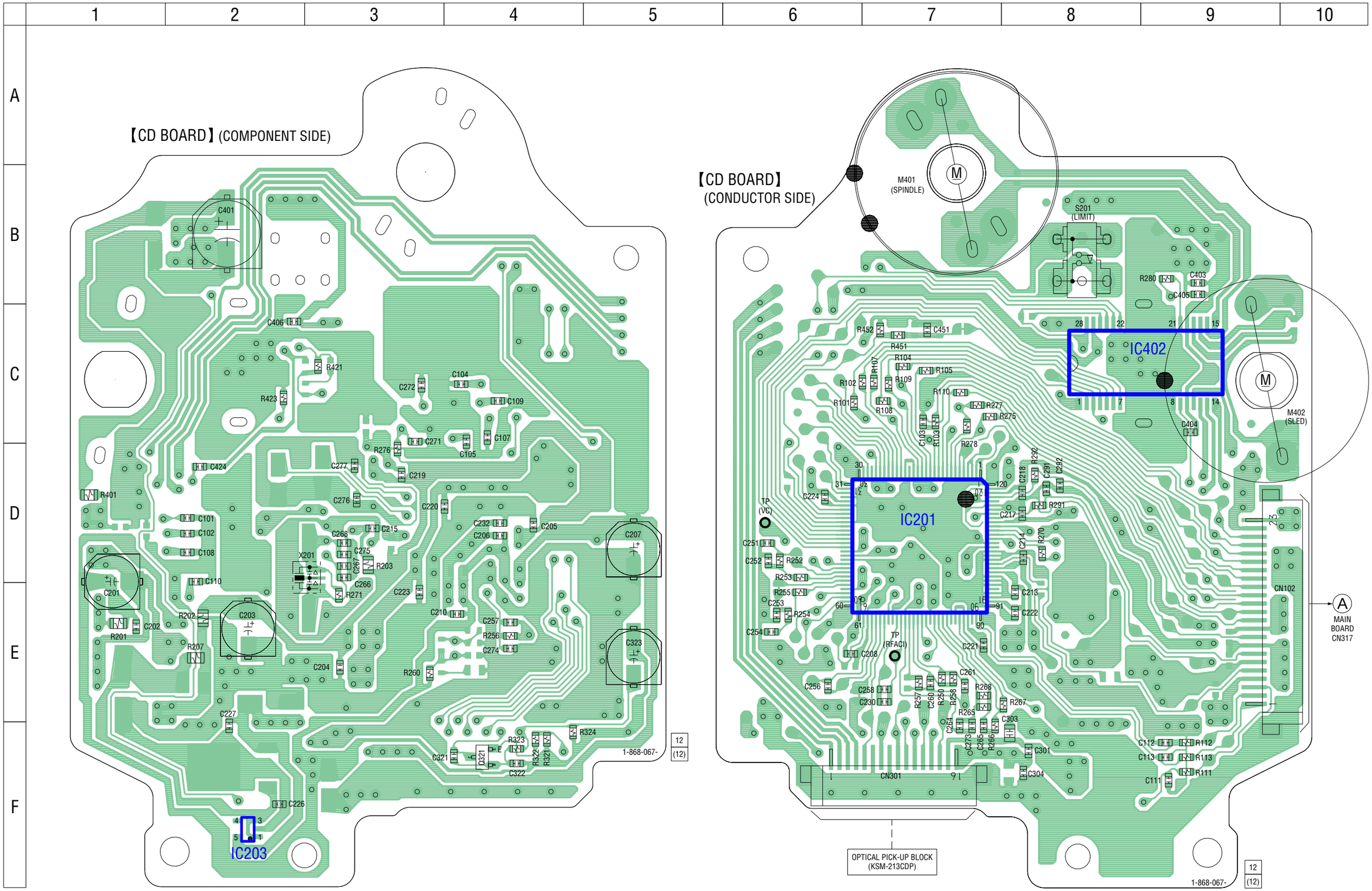
Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ▬▬ : B+ Line.
- ▬ ▬ ▬ : B– Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.

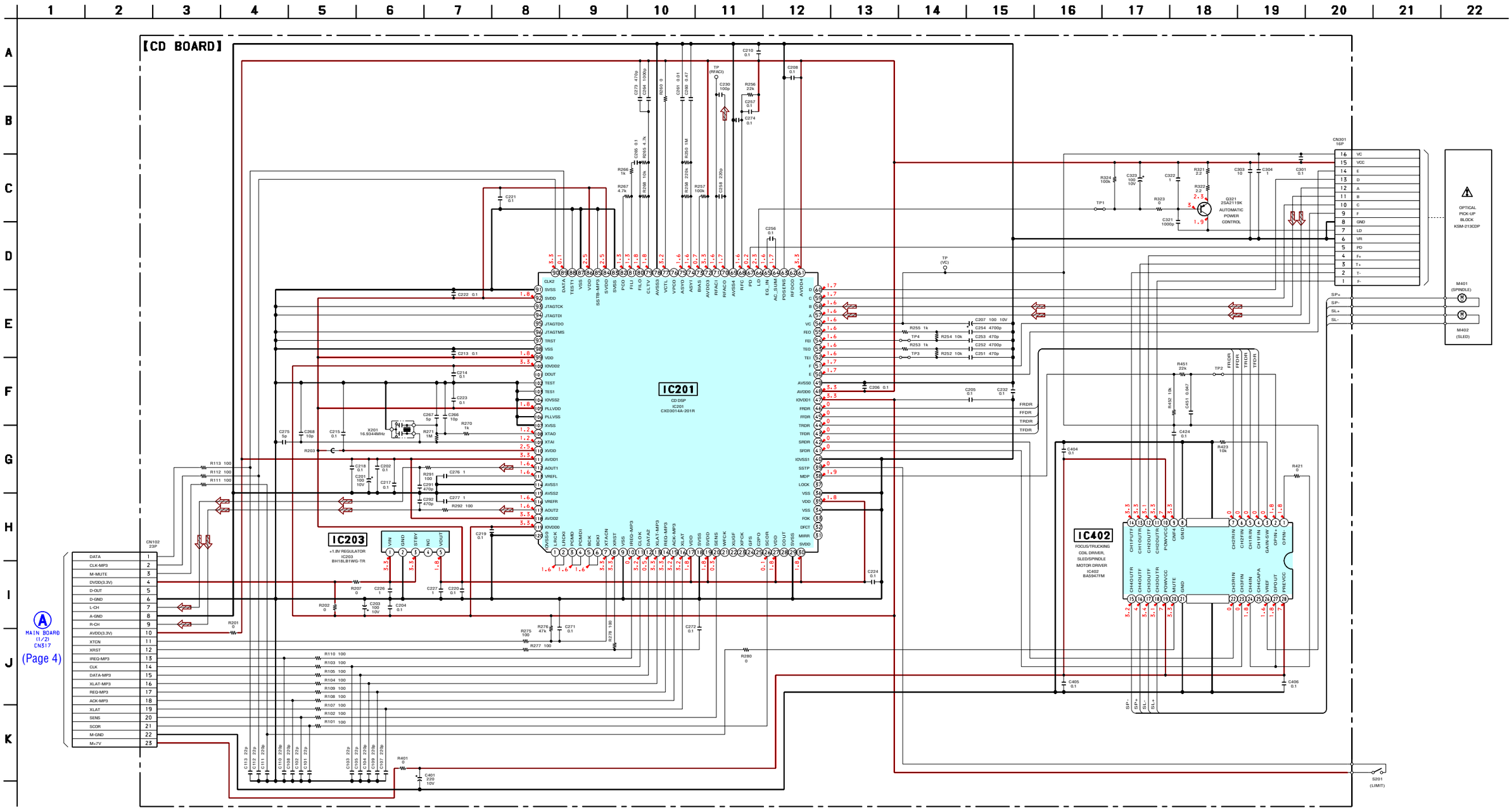
– CD Board –
no mark : CD PLAY
– MAIN Board –
no mark : TUNER
⟨⟨ ⟩⟩ : TAPE PLAY
{ } : REC

- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : TUNER
  ⇨ : CD PLAY
  ⇨ : TAPE PLAY
  ⇨ : REC
  ⇨ : AUX IN
- Abbreviation
  CND : Canadian model

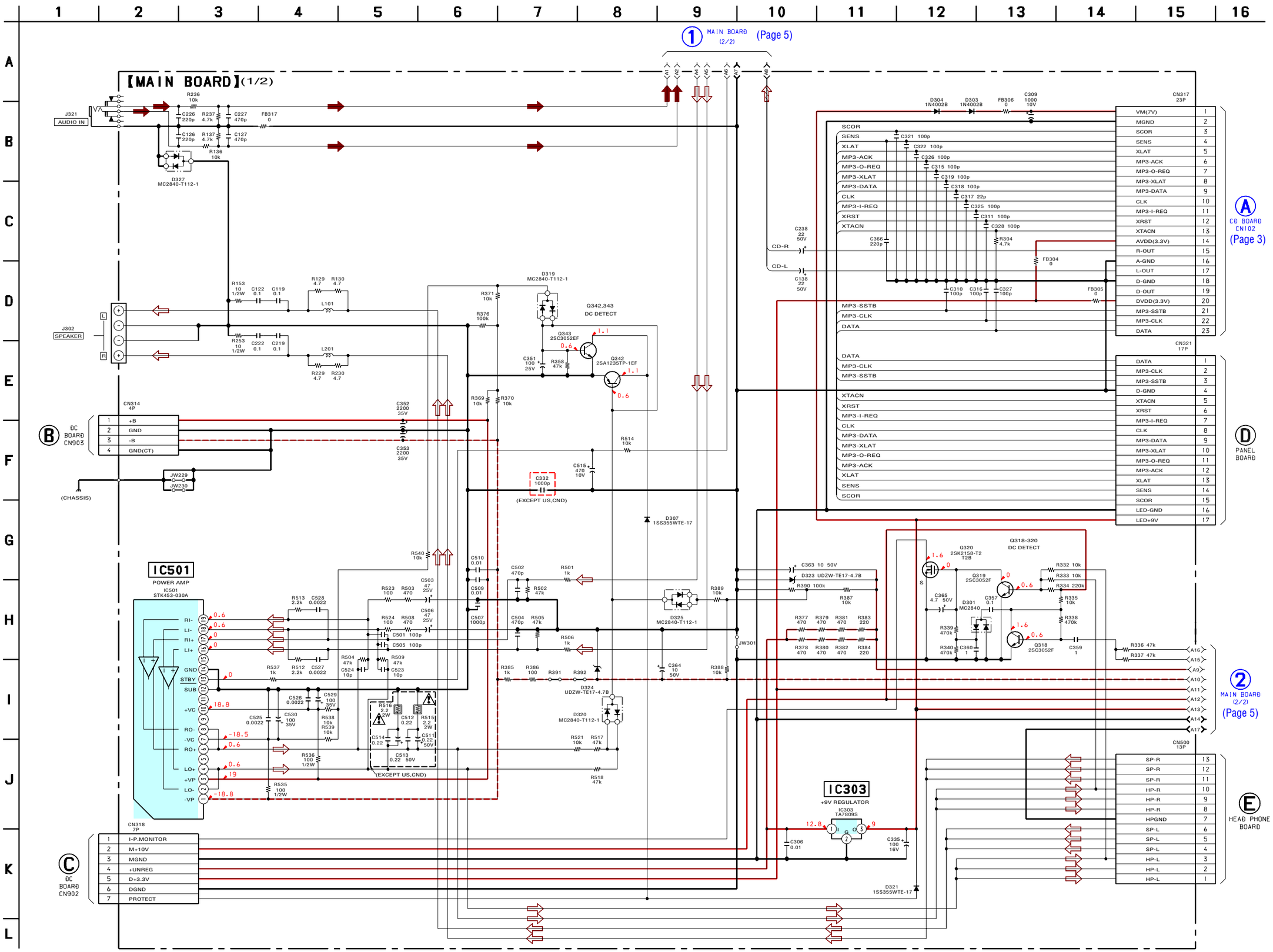
2-1. PRINTED WIRING BOARD – CD Board – : **Uses unleaded solder.**



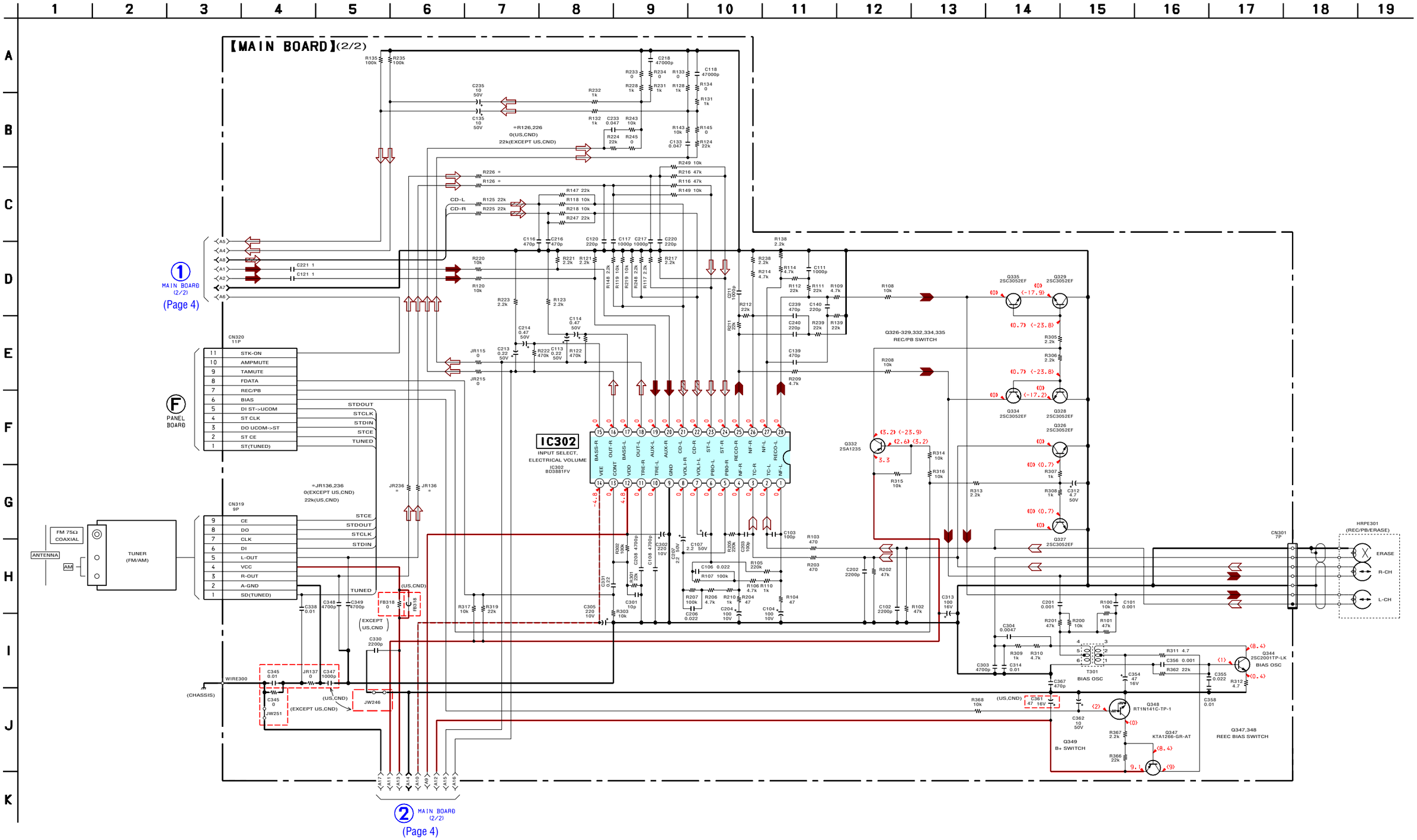
2-2. SCHEMATIC DIAGRAM – CD Board –



2-3. SCHEMATIC DIAGRAM – MAIN Board (1/2) –

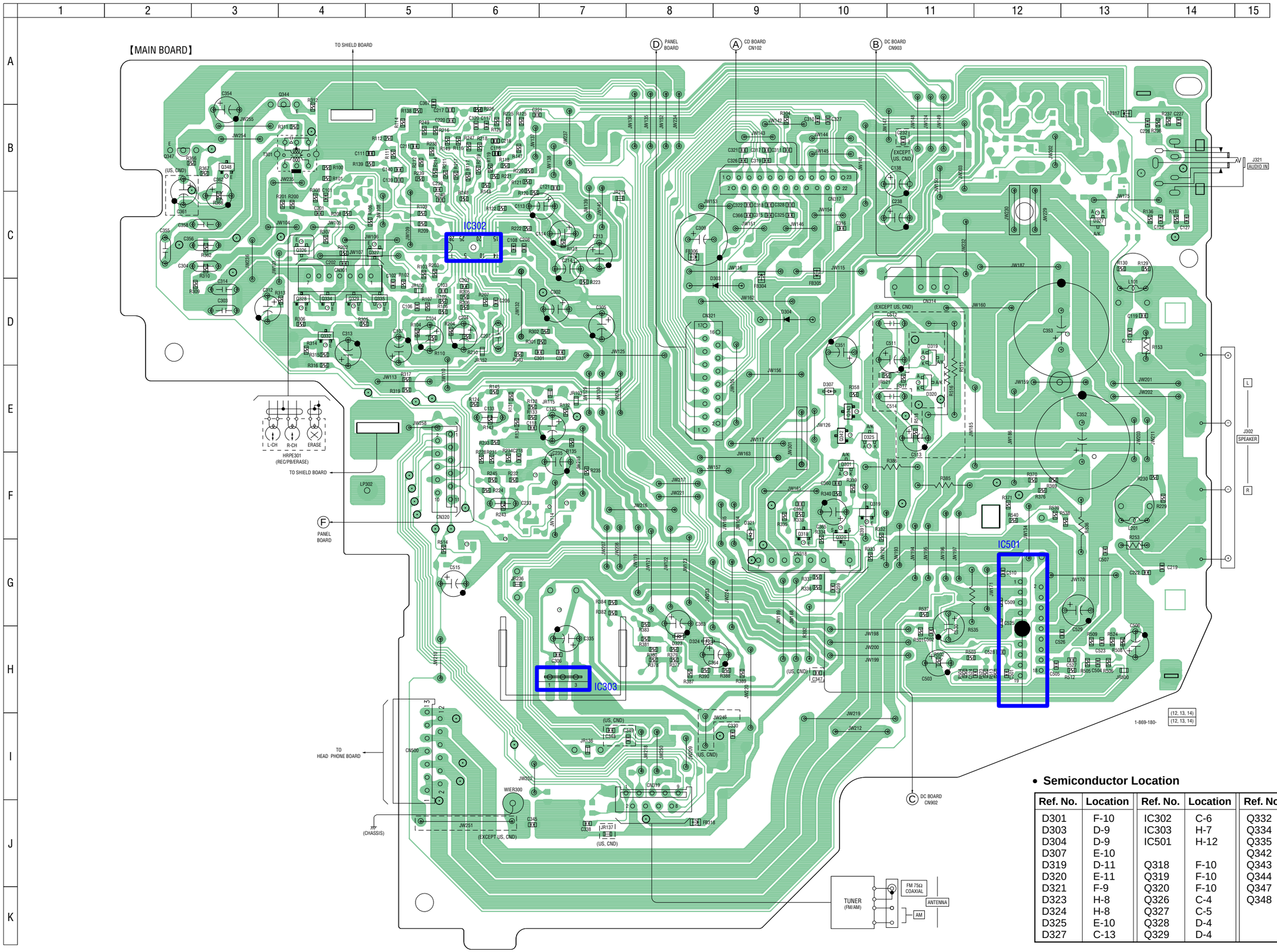


2-4. SCHEMATIC DIAGRAM – MAIN Board (2/2) –



2-5. PRINTED WIRING BOARD – MAIN Board –

: Uses unleaded solder.



- **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D301	F-10	IC302	C-6	Q332	D-4
D303	D-9	IC303	H-7	Q334	D-4
D304	D-9	IC501	H-12	Q335	D-5
D307	E-10			Q342	E-10
D319	D-11	Q318	F-10	Q343	E-10
D320	E-11	Q319	F-10	Q344	A-4
D321	F-9	Q320	F-10	Q347	B-2
D323	H-8	Q326	C-4	Q348	B-3
D324	H-8	Q327	C-5		
D325	E-10	Q328	D-4		
D327	C-13	Q329	D-4		

SECTION 3
ELECTRICAL PARTS LIST

CD

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Abbreviation
  CND : Canadian model
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA... : µA... uPA... : µPA...
  uPB... : µPB... uPC... : µPC...
  uPD... : µPD...
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	A-1134-279-A	CD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C102	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C103	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C104	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C105	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C107	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C108	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C109	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C110	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C111	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C112	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C113	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C201	1-128-995-21	ELECT CHIP	100uF	20%	10V
C202	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C203	1-128-995-21	ELECT CHIP	100uF	20%	10V
C204	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C205	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C206	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C207	1-128-995-21	ELECT CHIP	100uF	20%	10V
C208	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C210	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C213	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C214	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C215	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C217	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C218	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C219	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C220	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C221	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C222	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C223	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C224	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C226	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C227	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C230	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C232	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C251	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C252	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C253	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C254	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C256	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C257	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C258	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C260	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C261	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C264	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C265	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C266	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C267	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C268	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C271	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C272	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C273	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C274	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C275	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C276	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C277	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C291	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C292	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C301	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C303	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V
C304	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C321	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C322	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C323	1-128-995-21	ELECT CHIP	100uF	20%	10V
C401	1-128-394-11	ELECT CHIP	220uF	20%	10V
C404	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C405	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C406	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C424	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C451	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
		< CONNECTOR >			
CN102	1-770-706-21	CONNECTOR, FFC/FPC 23P			
CN301	1-770-425-51	CONNECTOR, FFC/FPC 16P			
		< IC >			
IC201	8-753-246-30	IC CXD3014A-201R			
IC203	6-709-050-01	IC BH18LB1WG-TR			
IC402	6-705-808-01	IC BA5947FM-E2			

CD **MAIN**

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q321	6-551-120-01	TRANSISTOR	2SA2119K		
		< RESISTOR/FERRITE BEAD >			
R101	1-216-809-11	METAL CHIP	100	5%	1/10W
R102	1-216-809-11	METAL CHIP	100	5%	1/10W
R103	1-216-809-11	METAL CHIP	100	5%	1/10W
R104	1-216-809-11	METAL CHIP	100	5%	1/10W
R105	1-216-809-11	METAL CHIP	100	5%	1/10W
R107	1-216-809-11	METAL CHIP	100	5%	1/10W
R108	1-216-809-11	METAL CHIP	100	5%	1/10W
R109	1-216-809-11	METAL CHIP	100	5%	1/10W
R110	1-216-809-11	METAL CHIP	100	5%	1/10W
R111	1-216-809-11	METAL CHIP	100	5%	1/10W
R112	1-216-809-11	METAL CHIP	100	5%	1/10W
R113	1-216-809-11	METAL CHIP	100	5%	1/10W
R201	1-216-295-00	SHORT CHIP	0		
R202	1-216-295-00	SHORT CHIP	0		
R203	1-500-445-21	FERRITE, EMI (SMD) (2012)			
R207	1-216-295-00	SHORT CHIP	0		
R250	1-216-857-11	METAL CHIP	1M	5%	1/10W
R252	1-216-833-11	METAL CHIP	10K	5%	1/10W
R253	1-216-821-11	METAL CHIP	1K	5%	1/10W
R254	1-216-833-11	METAL CHIP	10K	5%	1/10W
R255	1-216-821-11	METAL CHIP	1K	5%	1/10W
R256	1-216-837-11	METAL CHIP	22K	5%	1/10W
R257	1-216-845-11	METAL CHIP	100K	5%	1/10W
R258	1-216-849-11	METAL CHIP	220K	5%	1/10W
R260	1-216-864-11	SHORT CHIP	0		
R265	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R266	1-216-821-11	METAL CHIP	1K	5%	1/10W
R267	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R268	1-216-833-11	METAL CHIP	10K	5%	1/10W
R270	1-216-821-11	METAL CHIP	1K	5%	1/10W
R271	1-216-857-11	METAL CHIP	1M	5%	1/10W
R275	1-216-809-11	METAL CHIP	100	5%	1/10W
R276	1-216-841-11	METAL CHIP	47K	5%	1/10W
R277	1-216-809-11	METAL CHIP	100	5%	1/10W
R278	1-216-809-11	METAL CHIP	100	5%	1/10W
R280	1-216-864-11	SHORT CHIP	0		
R291	1-216-809-11	METAL CHIP	100	5%	1/10W
R292	1-216-809-11	METAL CHIP	100	5%	1/10W
R321	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R322	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R323	1-216-864-11	SHORT CHIP	0		
R324	1-216-845-11	METAL CHIP	100K	5%	1/10W
R401	1-216-295-00	SHORT CHIP	0		
R421	1-216-864-11	SHORT CHIP	0		
R423	1-216-833-11	METAL CHIP	10K	5%	1/10W
R451	1-216-837-11	METAL CHIP	22K	5%	1/10W
R452	1-216-833-11	METAL CHIP	10K	5%	1/10W
		< VIBRATOR >			
X201	1-795-101-21	VIBRATOR, CERAMIC (16.9344MHz)			

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Ref. No.	Part No.	Description			Remark
	A-1158-128-A	MAIN BOARD, COMPLETE (US, CND)			
	A-1158-557-A	MAIN BOARD, COMPLETE (EXCEPT US, CND)			
		**********			
	2-586-961-01	HEAT SINK			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S			
		< CAPACITOR/JUMPER RESISTOR >			
C101	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C102	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C103	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C104	1-104-665-11	ELECT	100uF	20%	25V
C106	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C107	1-126-961-11	ELECT	2.2uF	20%	50V
C108	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C111	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C113	1-126-957-11	ELECT	0.22uF	20%	50V
C114	1-126-959-11	ELECT	0.47uF	20%	50V
C116	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C117	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C118	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C119	1-100-597-91	CERAMIC CHIP	0.1uF	10%	25V
C120	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C121	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C122	1-100-597-91	CERAMIC CHIP	0.1uF	10%	25V
C126	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C127	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C133	1-130-491-00	MYLAR	0.047uF	5%	50V
C135	1-126-964-11	ELECT	10uF	20%	50V
C138	1-126-965-11	ELECT	22uF	20%	50V
C139	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C140	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C201	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C202	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C203	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C204	1-104-665-11	ELECT	100uF	20%	25V
C206	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C207	1-126-961-11	ELECT	2.2uF	20%	50V
C208	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C211	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C213	1-126-957-11	ELECT	0.22uF	20%	50V
C214	1-126-959-11	ELECT	0.47uF	20%	50V
C216	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C217	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C218	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C219	1-100-597-91	CERAMIC CHIP	0.1uF	10%	25V
C220	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C221	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C222	1-100-597-91	CERAMIC CHIP	0.1uF	10%	25V
C226	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C227	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C233	1-130-491-00	MYLAR	0.047uF	5%	50V
C235	1-126-964-11	ELECT	10uF	20%	50V
C238	1-126-965-11	ELECT	22uF	20%	50V
C239	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C240	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C301	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C302	1-126-934-11	ELECT	220uF	20%	16V

Ref. No.	Part No.	Description			Remark
C303	1-130-479-00	MYLAR	0.0047uF	5%	50V
C304	1-130-479-00	MYLAR	0.0047uF	5%	50V
C305	1-126-934-11	ELECT	220uF	20%	16V
C306	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C309	1-126-926-11	ELECT	1000uF	20%	10V
C310	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C311	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C312	1-126-963-11	ELECT	4.7uF	20%	50V
C313	1-126-933-11	ELECT	100uF	20%	16V
C314	1-130-483-00	MYLAR	0.01uF	5%	50V
C315	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C316	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C317	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C318	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C319	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C321	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C322	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C325	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C326	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C327	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C328	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C330	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C331	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C332	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
					(EXCEPT US, CND)
C335	1-126-933-11	ELECT	100uF	20%	16V
C338	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C345	1-162-974-11	CERAMIC CHIP	0.01uF		50V
					(US, CND)
C345	1-216-864-11	SHORT CHIP	0 (EXCEPT US, CND)		
C347	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
					(US, CND)
C348	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
					(US, CND)
C349	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
					(US, CND)
C351	1-104-665-11	ELECT	100uF	20%	25V
C352	1-126-953-11	ELECT	2200uF	20%	35V
C353	1-126-953-11	ELECT	2200uF	20%	35V
C354	1-126-947-11	ELECT	47uF	20%	35V
C355	1-130-487-00	MYLAR	0.022uF	5%	50V
C356	1-130-471-00	MYLAR	0.001uF	5%	50V
C357	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C358	1-130-483-00	MYLAR	0.01uF	5%	50V
C359	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C360	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C361	1-126-947-11	ELECT	47uF	20%	35V
					(US, CND)
C362	1-126-964-11	ELECT	10uF	20%	50V
C363	1-126-964-11	ELECT	10uF	20%	50V
C364	1-126-964-11	ELECT	10uF	20%	50V
C365	1-126-963-11	ELECT	4.7uF	20%	50V
C366	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C367	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C501	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C502	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C503	1-126-947-11	ELECT	47uF	20%	35V
C504	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C505	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C506	1-126-947-11	ELECT	47uF	20%	35V
C507	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C509	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C510	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C511	1-126-960-11	ELECT	1uF	20%	50V
					(EXCEPT US, CND)
C512	1-131-704-11	FILM	1uF	5%	50V
					(EXCEPT US, CND)
C513	1-126-960-11	ELECT	1uF	20%	50V
					(EXCEPT US, CND)
C514	1-131-704-11	FILM	1uF	5%	50V
					(EXCEPT US, CND)
C515	1-126-935-11	ELECT	470uF	20%	16V
C523	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C524	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C525	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C526	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C527	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C528	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C529	1-126-948-11	ELECT	100uF	20%	35V
C530	1-126-948-11	ELECT	100uF	20%	35V
		< CONNECTOR >			
* CN301	1-815-448-11	PIN, CONNECTOR (PWB) 7P			
CN317	1-779-291-11	CONNECTOR, FFC (LIF (NON-ZIF)) 23P			
CN319	1-568-828-11	CONNECTOR, FFC 9P			
CN320	1-568-830-11	CONNECTOR, FFC 11P			
CN321	1-784-778-11	CONNECTOR, FFC 17P			
CN500	1-784-735-11	CONNECTOR, FFC 13P			
		< DIODE >			
D301	6-500-848-01	DIODE MC2840-T112-1			
D303	8-719-063-79	DIODE 1N4002B			
D304	8-719-063-79	DIODE 1N4002B			
D307	6-501-193-01	DIODE 1SS355WTE-17			
D319	6-500-848-01	DIODE MC2840-T112-1			
D320	6-500-848-01	DIODE MC2840-T112-1			
D321	6-501-193-01	DIODE 1SS355WTE-17			
D323	6-501-166-01	DIODE UDZW-TE17-4.7B			
D324	6-501-166-01	DIODE UDZW-TE17-4.7B			
D325	6-500-848-01	DIODE MC2840-T112-1			
D327	6-500-848-01	DIODE MC2840-T112-1			
		< JUMPER RESISTOR/FERRITE BEAD >			
FB304	1-216-864-11	SHORT CHIP	0		
FB305	1-216-864-11	SHORT CHIP	0		
FB306	1-216-864-11	SHORT CHIP	0		
FB317	1-216-864-11	SHORT CHIP	0		
FB318	1-216-864-11	SHORT CHIP	0 (EXCEPT US, CND)		
FB318	1-500-445-21	FERRITE, EMI (SMD) (2012) (US, CND)			
		< IC >			
IC302	6-702-895-01	IC BD3881FV			
IC303	8-759-394-36	IC BA09T			
IC501	6-707-994-01	IC STK453-030A			

Ref. No.	Part No.	Description			Remark
		< JACK >			
J302	1-780-275-11	TERMINAL BOARD, PUSH (4P) (SPEAKER)			
J321	1-815-629-21	JACK (AUDIO IN)			
		< RESISTOR >			
JR100	1-216-864-11	SHORT CHIP	0		
JR103	1-216-864-11	SHORT CHIP	0		
JR115	1-216-864-11	SHORT CHIP	0		
JR136	1-216-837-11	METAL CHIP	22K	5%	1/10W (US, CND)
JR136	1-216-864-11	SHORT CHIP	0 (EXCEPT US, CND)		
JR137	1-216-864-11	SHORT CHIP	0 (US, CND)		
JR152	1-216-864-11	SHORT CHIP	0		
JR215	1-216-864-11	SHORT CHIP	0		
JR236	1-216-837-11	METAL CHIP	22K	5%	1/10W (US, CND)
JR236	1-216-864-11	SHORT CHIP	0 (EXCEPT US, CND)		
JR500	1-216-864-11	SHORT CHIP	0		
		< COIL >			
L101	1-422-009-13	COIL, AIR-CORE			
L201	1-422-009-13	COIL, AIR-CORE			
		< TRANSISTOR >			
Q318	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q319	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q320	8-729-045-62	FET	2SK2158-T2B		
Q326	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q327	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q328	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q329	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q332	8-729-600-22	TRANSISTOR	2SA1235-F		
Q334	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q335	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q342	8-729-600-22	TRANSISTOR	2SA1235-F		
Q343	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q344	8-729-142-46	TRANSISTOR	2SC2001-LK		
Q347	8-729-037-03	TRANSISTOR	KTA1266GR-AT		
Q348	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
		< RESISTOR >			
R100	1-216-833-11	METAL CHIP	10K	5%	1/10W
R101	1-216-841-11	METAL CHIP	47K	5%	1/10W
R102	1-216-841-11	METAL CHIP	47K	5%	1/10W
R103	1-216-817-11	METAL CHIP	470	5%	1/10W
R104	1-216-805-11	METAL CHIP	47	5%	1/10W
R105	1-216-849-11	METAL CHIP	220K	5%	1/10W
R106	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R107	1-216-845-11	METAL CHIP	100K	5%	1/10W
R108	1-216-833-11	METAL CHIP	10K	5%	1/10W
R109	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R110	1-216-821-11	METAL CHIP	1K	5%	1/10W
R111	1-216-837-11	METAL CHIP	22K	5%	1/10W
R112	1-216-837-11	METAL CHIP	22K	5%	1/10W
R114	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R116	1-216-841-11	METAL CHIP	47K	5%	1/10W
R117	1-216-825-11	METAL CHIP	2.2K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R118	1-216-833-11	METAL CHIP	10K	5%	1/10W
R119	1-216-833-11	METAL CHIP	10K	5%	1/10W
R120	1-216-833-11	METAL CHIP	10K	5%	1/10W
R121	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R122	1-216-853-11	METAL CHIP	470K	5%	1/10W
R123	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R124	1-216-837-11	METAL CHIP	22K	5%	1/10W
R125	1-216-837-11	METAL CHIP	22K	5%	1/10W
R126	1-216-837-11	METAL CHIP	22K	5%	1/10W (EXCEPT US, CND)
R126	1-216-864-11	SHORT CHIP	0 (US, CND)		
R128	1-216-821-11	METAL CHIP	1K	5%	1/10W
R129	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R130	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R131	1-216-821-11	METAL CHIP	1K	5%	1/10W
R132	1-216-821-11	METAL CHIP	1K	5%	1/10W
R133	1-216-864-11	SHORT CHIP	0		
R134	1-216-864-11	SHORT CHIP	0		
R135	1-216-845-11	METAL CHIP	100K	5%	1/10W
R136	1-216-833-11	METAL CHIP	10K	5%	1/10W
R137	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R138	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R139	1-216-837-11	METAL CHIP	22K	5%	1/10W
R143	1-216-833-11	METAL CHIP	10K	5%	1/10W
R145	1-216-864-11	SHORT CHIP	0		
R147	1-216-837-11	METAL CHIP	22K	5%	1/10W
R148	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R149	1-216-833-11	METAL CHIP	10K	5%	1/10W
R153	1-260-304-51	CARBON	10	5%	1/2W
R200	1-216-833-11	METAL CHIP	10K	5%	1/10W
R201	1-216-841-11	METAL CHIP	47K	5%	1/10W
R202	1-216-841-11	METAL CHIP	47K	5%	1/10W
R203	1-216-817-11	METAL CHIP	470	5%	1/10W
R204	1-216-805-11	METAL CHIP	47	5%	1/10W
R205	1-216-849-11	METAL CHIP	220K	5%	1/10W
R206	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R207	1-216-845-11	METAL CHIP	100K	5%	1/10W
R208	1-216-833-11	METAL CHIP	10K	5%	1/10W
R209	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R210	1-216-821-11	METAL CHIP	1K	5%	1/10W
R211	1-216-837-11	METAL CHIP	22K	5%	1/10W
R212	1-216-837-11	METAL CHIP	22K	5%	1/10W
R214	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R216	1-216-841-11	METAL CHIP	47K	5%	1/10W
R217	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R218	1-216-833-11	METAL CHIP	10K	5%	1/10W
R219	1-216-833-11	METAL CHIP	10K	5%	1/10W
R220	1-216-833-11	METAL CHIP	10K	5%	1/10W
R221	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R222	1-216-853-11	METAL CHIP	470K	5%	1/10W
R223	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R224	1-216-837-11	METAL CHIP	22K	5%	1/10W
R225	1-216-837-11	METAL CHIP	22K	5%	1/10W
R226	1-216-837-11	METAL CHIP	22K	5%	1/10W (EXCEPT US, CND)
R226	1-216-864-11	SHORT CHIP	0 (US, CND)		
R228	1-216-821-11	METAL CHIP	1K	5%	1/10W
R229	1-216-793-11	METAL CHIP	4.7	5%	1/10W

Ref. No.	Part No.	Description			Remark
R230	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R231	1-216-821-11	METAL CHIP	1K	5%	1/10W
R232	1-216-821-11	METAL CHIP	1K	5%	1/10W
R233	1-216-864-11	SHORT CHIP	0		
R234	1-216-864-11	SHORT CHIP	0		
R235	1-216-845-11	METAL CHIP	100K	5%	1/10W
R236	1-216-833-11	METAL CHIP	10K	5%	1/10W
R237	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R238	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R239	1-216-837-11	METAL CHIP	22K	5%	1/10W
R243	1-216-833-11	METAL CHIP	10K	5%	1/10W
R245	1-216-864-11	SHORT CHIP	0		
R247	1-216-837-11	METAL CHIP	22K	5%	1/10W
R248	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R249	1-216-833-11	METAL CHIP	10K	5%	1/10W
R253	1-260-304-51	CARBON	10	5%	1/2W
R301	1-216-837-11	METAL CHIP	22K	5%	1/10W
R302	1-216-845-11	METAL CHIP	100K	5%	1/10W
R303	1-216-833-11	METAL CHIP	10K	5%	1/10W
R304	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R305	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R306	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R307	1-216-821-11	METAL CHIP	1K	5%	1/10W
R308	1-216-821-11	METAL CHIP	1K	5%	1/10W
R309	1-216-821-11	METAL CHIP	1K	5%	1/10W
R310	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R311	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R312	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R313	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R314	1-216-833-11	METAL CHIP	10K	5%	1/10W
R315	1-216-833-11	METAL CHIP	10K	5%	1/10W
R316	1-216-833-11	METAL CHIP	10K	5%	1/10W
R317	1-216-833-11	METAL CHIP	10K	5%	1/10W
R319	1-216-837-11	METAL CHIP	22K	5%	1/10W
R332	1-216-833-11	METAL CHIP	10K	5%	1/10W
R333	1-216-833-11	METAL CHIP	10K	5%	1/10W
R334	1-216-849-11	METAL CHIP	220K	5%	1/10W
R335	1-216-833-11	METAL CHIP	10K	5%	1/10W
R336	1-216-841-11	METAL CHIP	47K	5%	1/10W
R337	1-216-841-11	METAL CHIP	47K	5%	1/10W
R338	1-216-853-11	METAL CHIP	470K	5%	1/10W
R339	1-216-853-11	METAL CHIP	470K	5%	1/10W
R340	1-216-853-11	METAL CHIP	470K	5%	1/10W
R358	1-216-841-11	METAL CHIP	47K	5%	1/10W
R362	1-216-837-11	METAL CHIP	22K	5%	1/10W
R366	1-216-837-11	METAL CHIP	22K	5%	1/10W
R367	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R368	1-216-833-11	METAL CHIP	10K	5%	1/10W
R369	1-216-833-11	METAL CHIP	10K	5%	1/10W
R370	1-216-833-11	METAL CHIP	10K	5%	1/10W
R371	1-216-833-11	METAL CHIP	10K	5%	1/10W
R376	1-216-845-11	METAL CHIP	100K	5%	1/10W
R377	1-216-817-11	METAL CHIP	470	5%	1/10W
R378	1-216-817-11	METAL CHIP	470	5%	1/10W
R379	1-216-817-11	METAL CHIP	470	5%	1/10W
R380	1-216-817-11	METAL CHIP	470	5%	1/10W
R381	1-216-817-11	METAL CHIP	470	5%	1/10W
R382	1-216-817-11	METAL CHIP	470	5%	1/10W

Ref. No.	Part No.	Description			Remark
R383	1-216-813-11	METAL CHIP	220	5%	1/10W
R384	1-216-813-11	METAL CHIP	220	5%	1/10W
R385	1-260-328-11	CARBON	1K	5%	1/2W
R386	1-260-087-11	CARBON	100	5%	1/2W
R387	1-216-833-11	METAL CHIP	10K	5%	1/10W
R388	1-216-833-11	METAL CHIP	10K	5%	1/10W
R389	1-216-833-11	METAL CHIP	10K	5%	1/10W
R390	1-216-845-11	METAL CHIP	100K	5%	1/10W
R501	1-216-821-11	METAL CHIP	1K	5%	1/10W
R502	1-216-841-11	METAL CHIP	47K	5%	1/10W
R503	1-216-817-11	METAL CHIP	470	5%	1/10W
R504	1-216-841-11	METAL CHIP	47K	5%	1/10W
R505	1-216-841-11	METAL CHIP	47K	5%	1/10W
R506	1-216-821-11	METAL CHIP	1K	5%	1/10W
R508	1-216-817-11	METAL CHIP	470	5%	1/10W
R509	1-216-841-11	METAL CHIP	47K	5%	1/10W
R512	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R513	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R514	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
⚠R515	1-216-373-11	METAL OXIDE	2.2K	5%	2W (EXCEPT US, CND)
⚠R516	1-216-373-11	METAL OXIDE	2.2K	5%	2W (EXCEPT US, CND)
R517	1-216-841-11	METAL CHIP	47K	5%	1/10W
R518	1-216-841-11	METAL CHIP	47K	5%	1/10W
R521	1-216-833-11	METAL CHIP	10K	5%	1/10W
R523	1-216-809-11	METAL CHIP	100	5%	1/10W
R524	1-216-809-11	METAL CHIP	100	5%	1/10W
R535	1-260-087-11	CARBON	100	5%	1/2W
R536	1-260-087-11	CARBON	100	5%	1/2W
R537	1-216-821-11	METAL CHIP	1K	5%	1/10W
R538	1-216-833-11	METAL CHIP	10K	5%	1/10W
R539	1-216-833-11	METAL CHIP	10K	5%	1/10W
R540	1-216-833-11	METAL CHIP	10K	5%	1/10W
		< TRANSFORMER >			
T301	1-443-760-11	TRANSFORMER, BIAS OSCILLATION			

MEMO

HCD-NEZ30

SONY

US Model
Canadian Model
E Model

SERVICE MANUAL

Ver. 1.3 2006.05

SUPPLEMENT-2

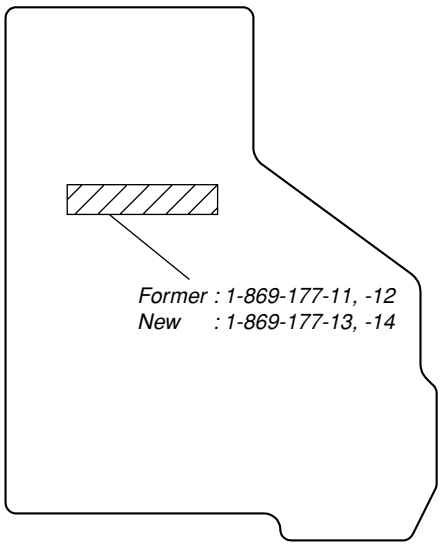
File this supplement with the service manual.

Subject: Change of HEAD PHONE board (Suffix-13, -14)

In this set, HEAD PHONE board has been changed in the midway of production.
Printed wiring boards and schematic diagrams of new type, and changed parts list are described in this supplement-2.
Refer to original service manual and supplement-1 for other information.

1. NEW/FORMER DESCRIPTION

– HEAD PHONE Board (Component Side) –



9-887-030-82

2. DIAGRAMS

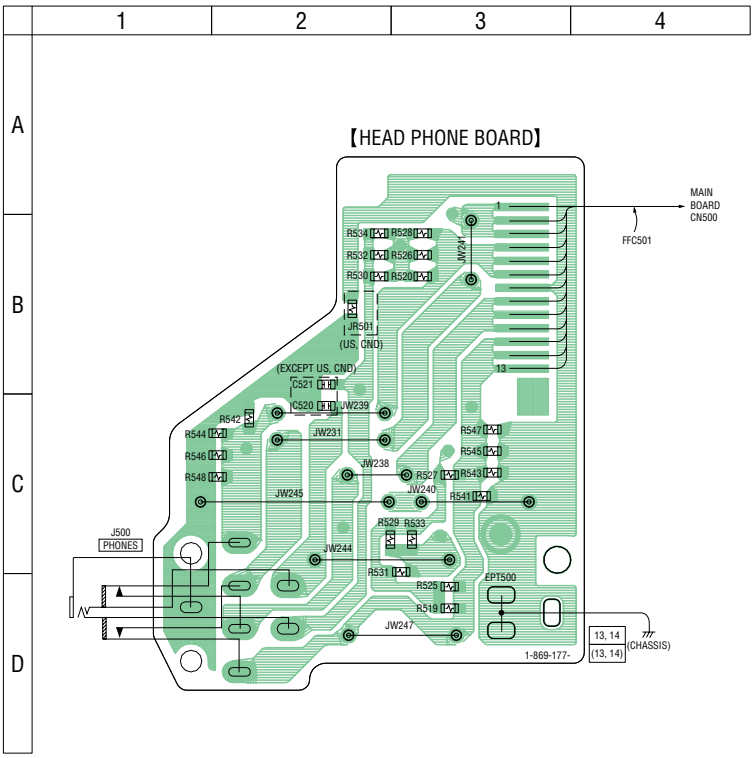
- **Note for Printed Wiring Boards and Schematic Diagrams**

Note on Printed Wiring Board:
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ▬ : Pattern from the side which enables seeing.

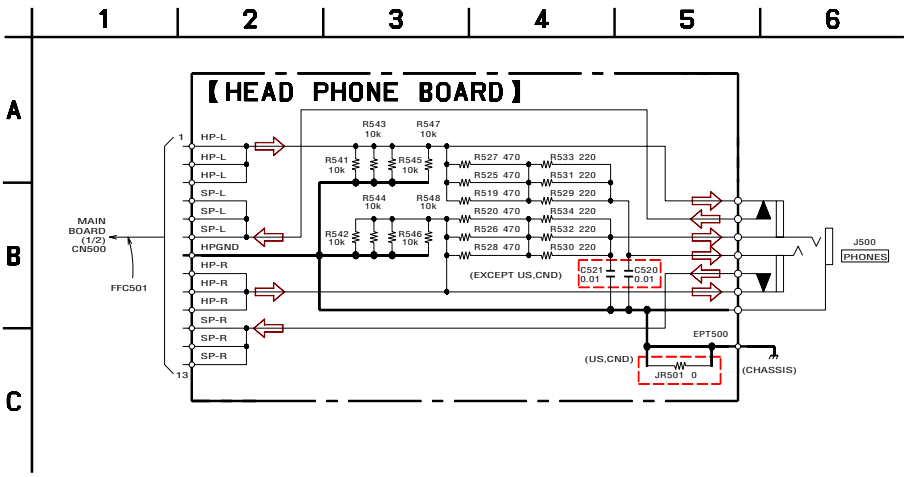
(The other layers' patterns are not indicated.)

Note on Schematic Diagram:
- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▭ : panel designation.
- Signal path.
  ⇨ : TUNER
- Abbreviation
  CND : Canadian model

2-1. PRINTED WIRING BOARD – HEAD PHONE Board – : Uses unleaded solder.



2-2. SCHEMATIC DIAGRAM – HEAD PHONE Board –



HEAD PHONE

3. ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Abbreviation
  CND : Canadian model
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA... : µA... uPA... : µPA...
  uPB... : µPB... uPC... : µPC...
  uPD... : µPD...
- CAPACITORS
  uF: µF
- COILS
  uH: µH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	A-1158-127-A	HEAD PHONE BOARD, COMPLETE			(EXCEPT US, CND)
	A-1183-398-A	HEAD PHONE BOARD, COMPLETE (US, CND)			
		**********			
		< CAPACITOR >			
C550	1-162-974-11	CERAMIC CHIP	0.01uF		50V (EXCEPT US, CND)
C551	1-162-974-11	CERAMIC CHIP	0.01uF		50V (EXCEPT US, CND)
		< FLAT TYPE WIRE >			
FFC501	1-831-785-21	CABLE, FLEXIBLE FLAT (13 CORE)			
		< JACK >			
J500	1-785-448-21	JACK (PHONES)			
		< JUMPER RESISTOR >			
JR501	1-216-864-11	SHORT CHIP	0 (US, CND)		
		< RESISTOR >			
R519	1-216-817-11	METAL CHIP	470	5%	1/10W
R520	1-216-817-11	METAL CHIP	470	5%	1/10W
R525	1-216-817-11	METAL CHIP	470	5%	1/10W
R526	1-216-817-11	METAL CHIP	470	5%	1/10W
R527	1-216-817-11	METAL CHIP	470	5%	1/10W
R528	1-216-817-11	METAL CHIP	470	5%	1/10W
R529	1-216-813-11	METAL CHIP	220	5%	1/10W
R530	1-216-813-11	METAL CHIP	220	5%	1/10W
R531	1-216-813-11	METAL CHIP	220	5%	1/10W
R532	1-216-813-11	METAL CHIP	220	5%	1/10W
R533	1-216-813-11	METAL CHIP	220	5%	1/10W
R534	1-216-813-11	METAL CHIP	220	5%	1/10W
R541	1-216-833-11	METAL CHIP	10K	5%	1/10W
R542	1-216-833-11	METAL CHIP	10K	5%	1/10W
R543	1-216-833-11	METAL CHIP	10K	5%	1/10W
R544	1-216-833-11	METAL CHIP	10K	5%	1/10W
R545	1-216-833-11	METAL CHIP	10K	5%	1/10W
R546	1-216-833-11	METAL CHIP	10K	5%	1/10W
R547	1-216-833-11	METAL CHIP	10K	5%	1/10W
R548	1-216-833-11	METAL CHIP	10K	5%	1/10W

MEMO

HCD-NEZ30

SONY

SERVICE MANUAL

US Model
Canadian Model
E Model

Ver. 1.3 2006.05

SUPPLEMENT-3

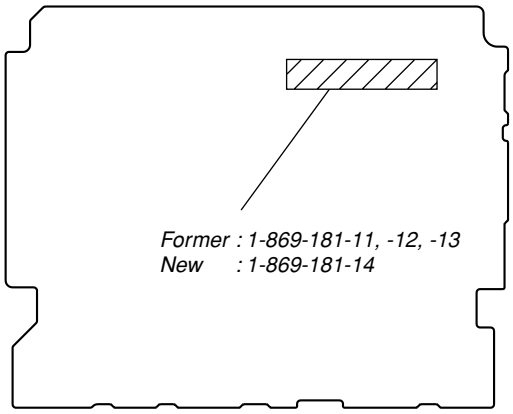
File this supplement with the service manual.

Subject: Change of PANEL board (Suffix-14)

In this set, PANEL board has been changed in the midway of production.
Printed wiring boards and schematic diagrams of new type, and changed parts list are described in this supplement-3.
Refer to original service manual, supplement-1 and supplement-2 for other information.

1. NEW/FORMER DESCRIPTION

– PANEL Board (Component Side) –



9-887-030-83

2. DIAGRAMS

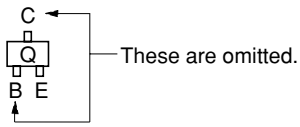
- **Note for Printed Wiring Boards and Schematic Diagrams**

Note on Printed Wiring Board:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- △ : internal component.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

- Indication of transistor



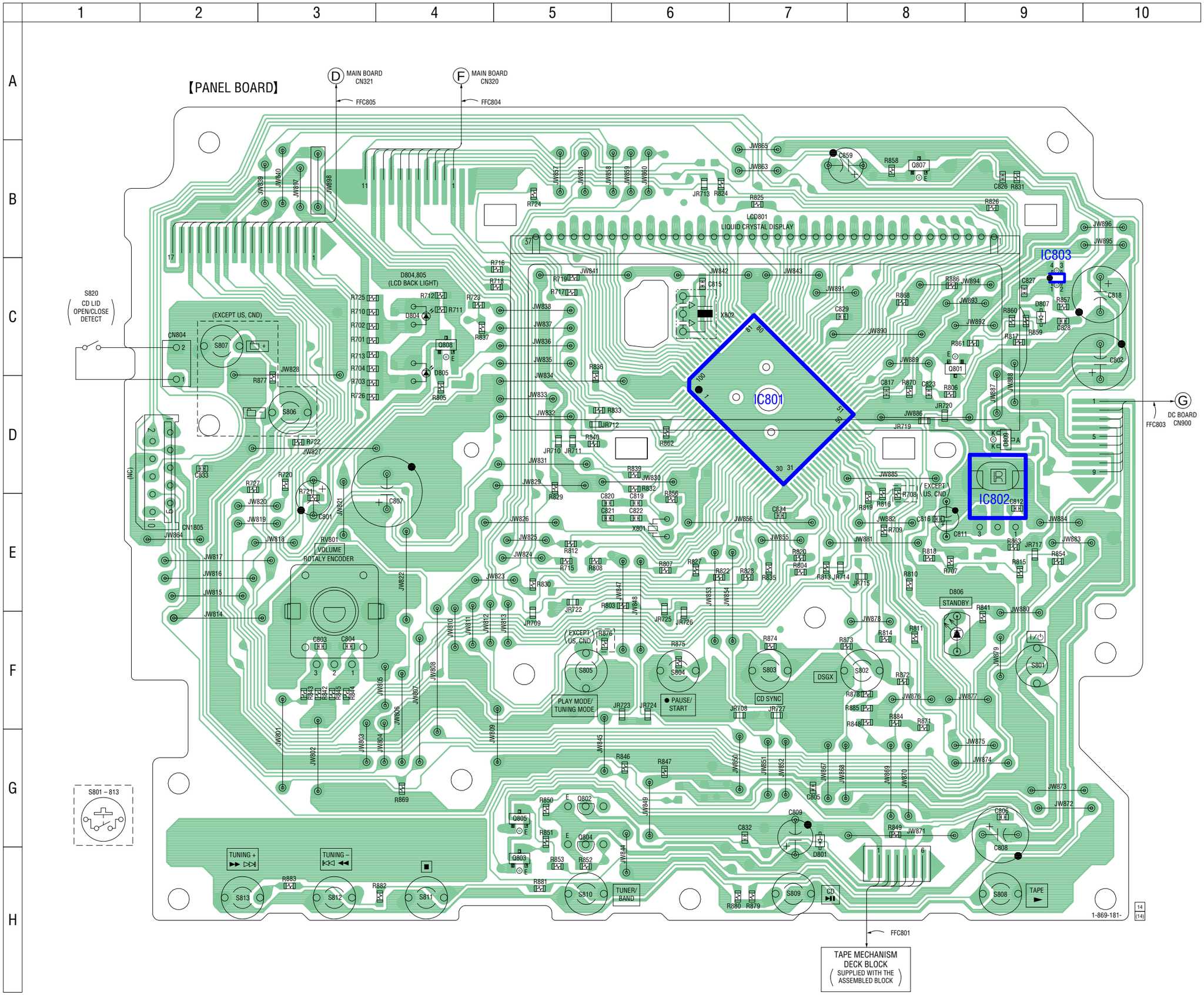
Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.
- ▬ : B+ Line.
- Voltages are dc with respect to ground under no-signal conditions.
  no mark : TUNER
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Abbreviation
  CND : Canadian model

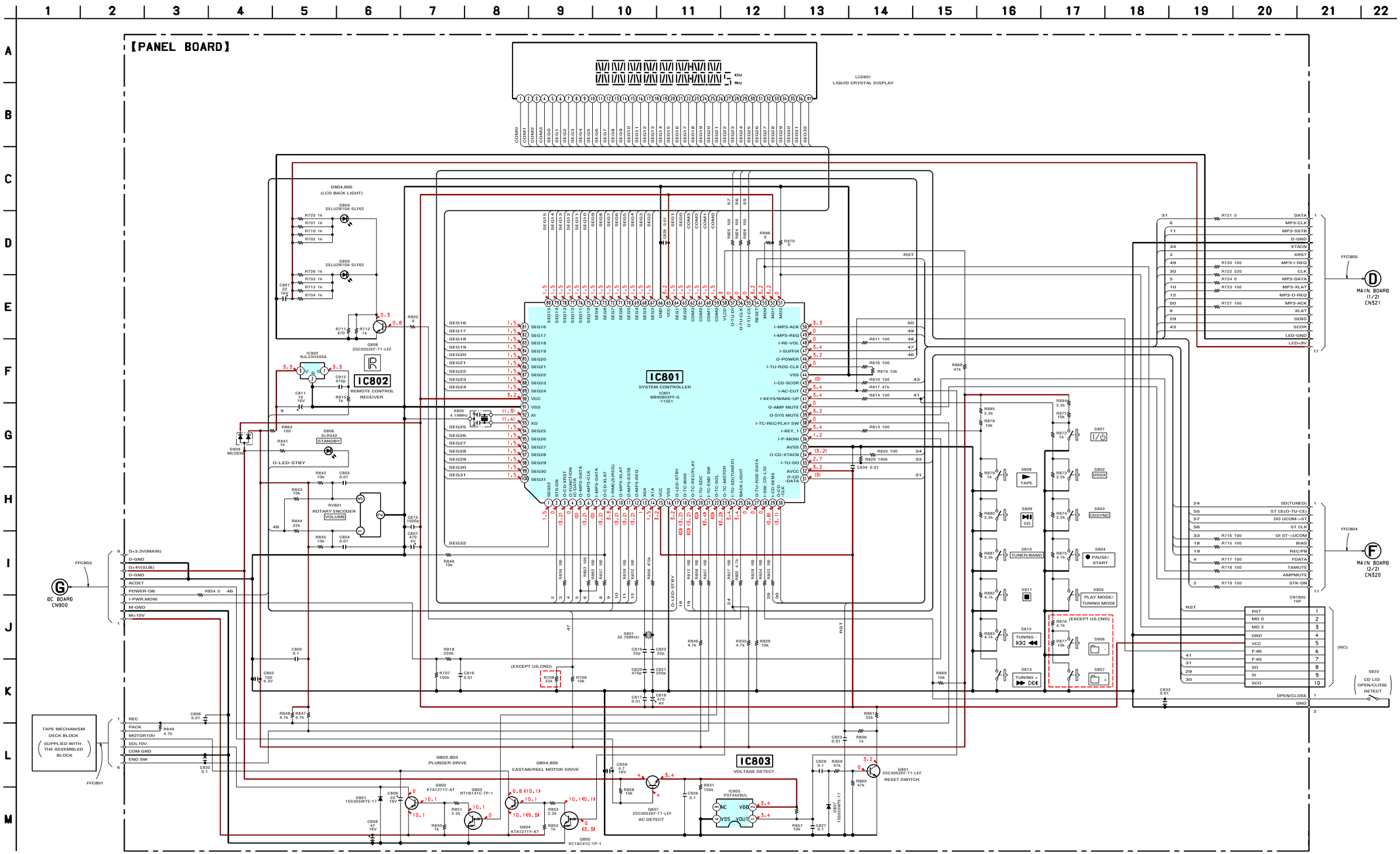
2-1. PRINTED WIRING BOARD – PANEL Board – : Uses unleaded solder.

- **Semiconductor Location**

Ref. No.	Location
D801	G-7
D804	C-4
D805	C-4
D806	F-8
D807	C-9
D809	D-9
IC801	D-7
IC802	E-9
IC803	D-9
Q801	C-8
Q802	G-5
Q803	H-5
Q804	G-5
Q805	G-5
Q807	B-8
Q808	C-4



2-2. SCHEMATIC DIAGRAM – PANEL Board –



3. ELECTRICAL PARTS LIST

PANEL

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Abbreviation
  CND : Canadian model
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA... : µA... uPA... : µPA...
  uPB... : µPB... uPC... : µPC...
  uPD... : µPD...
- CAPACITORS
  uF: µF
- COILS
  uH: µH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	A-1158-131-A	PANEL BOARD, COMPLETE (US, CND)			
	A-1158-554-A	PANEL BOARD, COMPLETE (EXCEPT US, CND)			
		**********			
	2-581-390-01	HOLDER (LCD)			
	2-581-391-01	PLATE, LIGHT GUIDE			
	2-586-988-12	SHEET (LCD), DIFFUSION			
		< CAPACITOR >			
C801	1-124-234-00	ELECT	22uF	20%	16V
C802	1-124-584-00	ELECT	100uF	20%	6.3V
C803	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C804	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C805	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C806	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C807	1-126-518-11	ELECT	470uF	20%	4V
C808	1-124-589-11	ELECT	47uF	20%	16V
C809	1-124-234-00	ELECT	22uF	20%	16V
C811	1-126-157-11	ELECT	10uF	20%	16V
C812	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C815	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C816	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C817	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C818	1-126-518-11	ELECT	470uF	20%	4V
C819	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C820	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C821	1-164-816-11	CERAMIC CHIP	220PF	2%	50V
C822	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C823	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C826	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C827	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C828	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C829	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C832	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C833	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C834	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C859	1-124-259-11	ELECT	4.7uF	20%	50V
		< DIODE >			
D801	6-501-193-01	DIODE 1SS355WTE-17			
D804	6-501-139-01	LED SELU2B10A-SLF62 (LCD BACK LIGHT)			
D805	6-501-139-01	LED SELU2B10A-SLF62 (LCD BACK LIGHT)			
D806	8-719-063-93	LED SLR325VC-N-T32 (STANDBY)			
D807	6-501-193-01	DIODE 1SS355WTE-17			

Ref. No.	Part No.	Description	Remark
D809	8-719-000-07	DIODE MC2836	
		< FLAT TYPE WIRE >	
FFC801	1-832-196-21	CABLE, FLEXIBLE FLAT (6 CORE)	
FFC803	1-831-770-21	CABLE, FLEXIBLE FLAT (9 CORE)	
FFC804	1-831-781-21	CABLE, FLEXIBLE FLAT (11 CORE)	
FFC805	1-831-797-21	CABLE, FLEXIBLE FLAT (17 CORE)	
		< IC >	
IC801	6-806-626-01	IC MB90803PF-G-115E1	
IC802	6-600-349-21	IC NJL23H400A	
IC803	8-759-713-61	IC PST3429UL	
		< JUMPER RESISTOR >	
JR708	1-216-864-11	SHORT CHIP 0	
JR709	1-216-864-11	SHORT CHIP 0	
JR710	1-216-864-11	SHORT CHIP 0	
JR711	1-216-864-11	SHORT CHIP 0	
JR712	1-216-864-11	SHORT CHIP 0	
JR713	1-216-864-11	SHORT CHIP 0	
JR714	1-216-864-11	SHORT CHIP 0	
JR715	1-216-864-11	SHORT CHIP 0	
JR717	1-216-864-11	SHORT CHIP 0	
JR719	1-216-864-11	SHORT CHIP 0	
JR720	1-216-864-11	SHORT CHIP 0	
JR722	1-216-864-11	SHORT CHIP 0	
JR723	1-216-864-11	SHORT CHIP 0	
JR724	1-216-864-11	SHORT CHIP 0	
JR725	1-216-864-11	SHORT CHIP 0	
JR726	1-216-864-11	SHORT CHIP 0	
JR727	1-216-864-11	SHORT CHIP 0	
		< LIQUID CRYSTAL DISPLAY >	
LCD801	1-805-783-21	DISPLAY PANEL, LIQUID CRYSTAL	
		< TRANSISTOR >	
Q801	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q802	8-729-037-13	TRANSISTOR KTA1271Y	
Q803	8-729-027-43	TRANSISTOR DTC114EKA-T146	
Q804	8-729-037-13	TRANSISTOR KTA1271Y	
Q805	8-729-027-43	TRANSISTOR DTC114EKA-T146	
Q807	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q808	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

PANEL

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R701	1-216-821-11	METAL CHIP	1K	5%	1/10W
R702	1-216-821-11	METAL CHIP	1K	5%	1/10W
R703	1-216-821-11	METAL CHIP	1K	5%	1/10W
R704	1-216-821-11	METAL CHIP	1K	5%	1/10W
R707	1-216-845-11	METAL CHIP	100K	5%	1/10W
R708	1-216-837-11	METAL CHIP	22K	5%	1/10W
				(EXCEPT US, CND)	
R709	1-216-833-11	METAL CHIP	10K	5%	1/10W
R710	1-216-821-11	METAL CHIP	1K	5%	1/10W
R711	1-216-817-11	METAL CHIP	470	5%	1/10W
R712	1-216-821-11	METAL CHIP	1K	5%	1/10W
R713	1-216-821-11	METAL CHIP	1K	5%	1/10W
R715	1-216-809-11	METAL CHIP	100	5%	1/10W
R716	1-216-809-11	METAL CHIP	100	5%	1/10W
R717	1-216-809-11	METAL CHIP	100	5%	1/10W
R718	1-216-809-11	METAL CHIP	100	5%	1/10W
R719	1-216-809-11	METAL CHIP	100	5%	1/10W
R720	1-216-809-11	METAL CHIP	100	5%	1/10W
R721	1-216-864-11	SHORT CHIP	0		
R722	1-216-813-11	METAL CHIP	220	5%	1/10W
R723	1-216-809-11	METAL CHIP	100	5%	1/10W
R724	1-216-864-11	SHORT CHIP	0		
R725	1-216-821-11	METAL CHIP	1K	5%	1/10W
R726	1-216-821-11	METAL CHIP	1K	5%	1/10W
R727	1-216-809-11	METAL CHIP	100	5%	1/10W
R803	1-216-809-11	METAL CHIP	100	5%	1/10W
R804	1-216-809-11	METAL CHIP	100	5%	1/10W
R805	1-216-864-11	SHORT CHIP	0		
R806	1-216-821-11	METAL CHIP	1K	5%	1/10W
R807	1-216-809-11	METAL CHIP	100	5%	1/10W
R808	1-216-809-11	METAL CHIP	100	5%	1/10W
R810	1-216-809-11	METAL CHIP	100	5%	1/10W
R811	1-216-809-11	METAL CHIP	100	5%	1/10W
R812	1-216-809-11	METAL CHIP	100	5%	1/10W
R813	1-216-809-11	METAL CHIP	100	5%	1/10W
R814	1-216-809-11	METAL CHIP	100	5%	1/10W
R815	1-216-821-11	METAL CHIP	1K	5%	1/10W
R816	1-216-809-11	METAL CHIP	100	5%	1/10W
R817	1-216-841-11	METAL CHIP	47K	5%	1/10W
R818	1-216-849-11	METAL CHIP	220K	5%	1/10W
R819	1-216-833-11	METAL CHIP	10K	5%	1/10W
R820	1-216-845-11	METAL CHIP	100K	5%	1/10W
R822	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R824	1-216-809-11	METAL CHIP	100	5%	1/10W
R825	1-216-809-11	METAL CHIP	100	5%	1/10W
R826	1-216-809-11	METAL CHIP	100	5%	1/10W
R827	1-216-809-11	METAL CHIP	100	5%	1/10W
R828	1-216-809-11	METAL CHIP	100	5%	1/10W
R829	1-216-833-11	METAL CHIP	10K	5%	1/10W
R830	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R831	1-216-845-11	METAL CHIP	100K	5%	1/10W
R832	1-216-809-11	METAL CHIP	100	5%	1/10W
R833	1-216-809-11	METAL CHIP	100	5%	1/10W
R835	1-216-809-11	METAL CHIP	100	5%	1/10W
R836	1-216-809-11	METAL CHIP	100	5%	1/10W
R837	1-216-809-11	METAL CHIP	100	5%	1/10W
R839	1-216-809-11	METAL CHIP	100	5%	1/10W
R840	1-216-833-11	METAL CHIP	10K	5%	1/10W
R841	1-216-821-11	METAL CHIP	1K	5%	1/10W
R842	1-216-833-11	METAL CHIP	10K	5%	1/10W
R843	1-216-833-11	METAL CHIP	10K	5%	1/10W
R844	1-216-837-11	METAL CHIP	22K	5%	1/10W
R845	1-216-833-11	METAL CHIP	10K	5%	1/10W
R846	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R847	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R848	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R849	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R850	1-216-821-11	METAL CHIP	1K	5%	1/10W
R851	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R852	1-216-821-11	METAL CHIP	1K	5%	1/10W
R853	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R854	1-216-864-11	SHORT CHIP	0		
R856	1-216-853-11	METAL CHIP	470K	5%	1/10W
R857	1-216-833-11	METAL CHIP	10K	5%	1/10W
R858	1-216-833-11	METAL CHIP	10K	5%	1/10W
R859	1-216-841-11	METAL CHIP	47K	5%	1/10W
R860	1-216-841-11	METAL CHIP	47K	5%	1/10W
R861	1-216-837-11	METAL CHIP	22K	5%	1/10W
R862	1-216-809-11	METAL CHIP	100	5%	1/10W
R863	1-216-809-11	METAL CHIP	100	5%	1/10W
R868	1-216-841-11	METAL CHIP	47K	5%	1/10W
R869	1-216-833-11	METAL CHIP	10K	5%	1/10W
R870	1-216-864-11	SHORT CHIP	0		
R871	1-216-833-11	METAL CHIP	10K	5%	1/10W
R872	1-216-821-11	METAL CHIP	1K	5%	1/10W
R873	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R874	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R875	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R876	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
					(EXCEPT US, CND)
R877	1-216-833-11	METAL CHIP	10K	5%	1/10W
					(EXCEPT US, CND)
R878	1-216-833-11	METAL CHIP	10K	5%	1/10W
R879	1-216-821-11	METAL CHIP	1K	5%	1/10W
R880	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R881	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R882	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R883	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R884	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R885	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R886	1-216-864-11	SHORT CHIP	0		
		< ROTARY ENCODER >			
RV801	1-479-195-11	ENCODER (VOLUME)			
		< SWITCH >			
S801	1-786-050-21	SWITCH, KEY BOARD (I/⏻)			
S802	1-786-050-21	SWITCH, KEY BOARD (DSGX)			
S803	1-786-050-21	SWITCH, KEY BOARD (CD SYNC)			
S804	1-786-050-21	SWITCH, KEY BOARD (● PAUSE/START)			
S805	1-786-050-21	SWITCH, KEY BOARD (PLAY MODE/TUNING MODE)			
S806	1-786-050-21	SWITCH, KEY BOARD (FOLDER –) (EXCEPT US, CND)			

Ref. No.	Part No.	Description	Remark
S807	1-786-050-21	SWITCH, KEY BOARD (FOLDER +)	(EXCEPT US, CND)
S808	1-786-050-21	SWITCH, KEY BOARD (TAPE ►)	
S809	1-786-050-21	SWITCH, KEY BOARD (CD ►II)	
S810	1-786-050-21	SWITCH, KEY BOARD (TUNER/BAND)	
S811	1-786-050-21	SWITCH, KEY BOARD (■)	
S812	1-786-050-21	SWITCH, KEY BOARD (TUNING –, I◁◁ ◄◄)	
S813	1-786-050-21	SWITCH, KEY BOARD (TUNING +, ►► ▷▷I)	
		< VIBRATOR >	
X801	1-579-463-11	VIBRATOR, CRYSTAL (32.768kHz)	
X802	1-795-054-61	VIBRATOR, CERAMIC (10MHz)	

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2006.01	New
1.1	2006.03	Addition of E, Chilean, Peruvian, Argentina and Mexican models Change of AC, CONNECT, DC, HEAD PHONE, PANEL and SHIELD boards (suffix-12) Change of CD and MAIN boards (suffix-12) (SUPPLEMENT-1) (ECN-ECB42207/ECB47848)
1.2	2006.04	Change of AC, CONNECT, DC, PANEL and SHIELD boards (suffix-13) Change of MAIN board (suffix-13) (SUPPLEMENT-1) Change of HEAD PHONE board (suffix-13) (SUPPLEMENT-2) (ECN-ECB50674)
1.3	2006.05	Change of AC, CONNECT, DC and SHIELD boards (suffix-14) Change of MAIN board (suffix-14) (SUPPLEMENT-1) Change of HEAD PHONE board (suffix-14) (SUPPLEMENT-2) Change of PANEL board (suffix-14) (SUPPLEMENT-3) (ECN-ECB61411)